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People, Resources and the Environment

By Peter Jacobs

Public Review Phase

Lancaster
Sound
Regional
Study

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People, Resources and the Environment

Perspectives on the Use and Management of the Lancaster Sound Region

Government
Publications

Public Review Phase

by Peter Jacobs

August 1981



Evan Browne



Lancaster Sound Regional Study: Public Review

August 10, 1981

The Honourable John C. Munro
Minister of Indian Affairs and
Northern Development
House of Commons
Ottawa, Ontario

Dear Mr. Munro:

An important and potentially significant initiative has been launched by your department with respect to the national concern for Canada's high Arctic. The Lancaster Sound Regional Study and the draft green paper derived from it are the first attempts by government to initiate a process of regional planning in the North.

Public review was uniformly supportive of the department's initiative, and all comments and criticisms of the work accomplished to date must be viewed in this perspective.

Significant consensus was reached on a number of key issues during the public review process that I had the privilege of chairing. Community meetings held in the Lancaster Sound region followed by a northern and a southern workshop confirmed support of your department's initiatives in the high Arctic.

Further public review of the green paper in its final form was agreed to by Mr. Hornal, who represented your department at the northern workshop. I have recommended a specific structure for the timing and the format for this review in the body of this report.

There was consensus that the evaluation of possible options for the use and management of the Lancaster Sound region could not proceed in the absence of an understanding of global and national issues. I have recommended that these options deal with the global implications of the conservation and use of renewable and non-renewable resources in the high Arctic, and that the issue of Canadian sovereignty be addressed where appropriate. The impact of our national policies concerning energy self-sufficiency and

Canada's North must also be discussed if the broad implications of use and management of the region are to be fully appreciated. How else can the public judge the balance of regional and national interests properly?

Two other issues of national importance were mentioned frequently during public review.

The first issue is the clear need for a national policy across all departmental sectors of government for Canada's high Arctic. The public expressed an urgent need for integrated national policies with respect to energy, transportation, conservation and development of the high Arctic.

The second issue is the pressing need to resolve native land claims in northern Canada. The strategic importance of this activity to the native peoples of Canada in general, and the Inuit of the Lancaster Sound region in particular, cannot be too strongly stressed. Mention of the issue and current negotiations must be contained in the green paper.

In both these areas I am aware that you and your colleagues in the Cabinet have developed important initiatives. I can only underline, on behalf of those who participated in the public review process, the urgency that they attach to the early development and communication of an integrated set of national policies for the North as well as the expeditious resolution of native land claims.

The Lancaster Sound Regional Study can be viewed as a coherent attempt to deal with Canada's own North-South dialogue. Balancing the national and regional interest across two cultures is a challenge of national and even global importance and one that will be closely monitored. In addressing this issue, I have recommended that appropriate attention and more detailed analysis be devoted to a clear projection of the economic, social, and ecological benefits that might reasonably be derived by the residents of the Lancaster Sound region from each of the options for use reviewed in the green paper.

The Inuit who participated in the public review were most eloquent in defining one of their essential goals for the future: the maintenance of life-style options. I have recommended that the analysis of future options for the use and management of the region account fully for possible impacts that might be exerted on the existing and future pursuit of traditional life-style activities.

Further public review of the green paper was deemed necessary for a number of reasons. The most important was the lack of definition, scope, and development of the options for future uses presented for public review.

I have formulated a series of recommendations that reflect comments made during the public review. These comments are outlined in point form below. In identifying and elaborating options for the use of the Lancaster Sound region, the following should be developed and stated in the green paper:

- an option or options that stress future potential use of the renewable resources of the region on a sustaining basis and over a considerable length of time;
- a conservation strategy for all options reviewed and priorities as to the nature and location of conservation activities in the region;
- the range of options reviewed, including the option *not* to develop industrial activities; and
- the range of options reviewed, including the possibility of accelerated year-round shipping of gas and oil through Lancaster Sound within five years.

All options should be developed in some detail and reviewed with respect to relevant national policies. Regional benefits and social, economic and ecological impacts should be outlined. As stated previously, the effect of each use option must be reviewed in light of continued pursuit of traditional activities in the North.

Virtually unanimous agreement was achieved on the urgent need to establish a regional planning process for the high Arctic.

Consensus on this issue is supported by a wide range of governmental departments, industry, informed northern experts and the citizens of the region.

Consensus to plan is not a condemnation of the existing regulatory and control review procedures. In fact, the Federal Environmental Assessment and Review Program was most instrumental in launching the Lancaster Sound Regional Study. Project by project review, however, requires the context of policy goals and objectives and the format of a regional planning process if it is to be truly effective and comprehensive for the Canadian North.

Strong consensus was achieved on the need for principles and guidelines to direct the proposed planning process. Guidelines developed in a previous workshop sponsored by the Canadian Arctic Resources Committee and endorsed by the Baffin Region Inuit Association and the Inuit Tapirisat of Canada were reviewed, and in some cases, modified, during public review. These principles are contained in the body of this report.

Your department will issue a policy document on northern land-use planning that will complement the public review process and aid in determining the nature of the green paper. The submissions made during the public review indicate that there will be strong support, in principle, for this initiative. I have recommended that the policy be communicated to the Canadian public in the immediate future.

Insofar as is possible, aspects of the policy paper on northern land-use planning should be incorporated into the green paper and illustrated with respect to the options for the use and management of the Lancaster Sound region. New scientific information derived from the EAMES program should also be integrated where appropriate.

In the final section of this report I ask the question, How shall we plan? Consensus to plan is one of the many significant aspects of the public review of the draft green paper. But agreement to plan

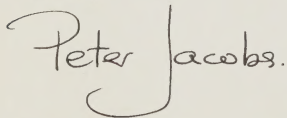
will not, *a priori* resolve complex issues viewed from the two predominant cultural perspectives in the Lancaster Sound region. I argue that many of the basic tenets of the planning process, as understood and practiced in southern Canada, may not be appropriate for the high Arctic.

Your department, in conjunction with other federal departments that have worked together on the Lancaster Sound Regional Study, deserve credit for the initiatives undertaken to date. Whereas much has been achieved within the context of the study, a significant amount still remains to be done.


All of us are faced with the challenge to develop an exemplary planning process for the high Arctic. This process must be attuned to national and regional interests. It must be perceived, understood and supported by all cultures of Canadians, in the North and the South. It must be viable as a means of conserving our rich biological heritage for sustainable development. Both the challenge and the process are exciting undertakings, indeed. Similarly failure to accept this challenge and to deal with it creatively and energetically may well result in environmental and social impacts that far exceed those discussed during the public review.

I trust that this report fairly and accurately portrays the essence of the public review process and recommend it for your consideration and action.

Yours truly,

A handwritten signature in black ink that reads "Peter Jacobs." The signature is written in a cursive style, with the first name "Peter" and the last name "Jacobs" clearly legible.

Peter Jacobs, Chairman,
Lancaster Sound Regional Study
Public Review



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1. Introduction



Julian Ingilis

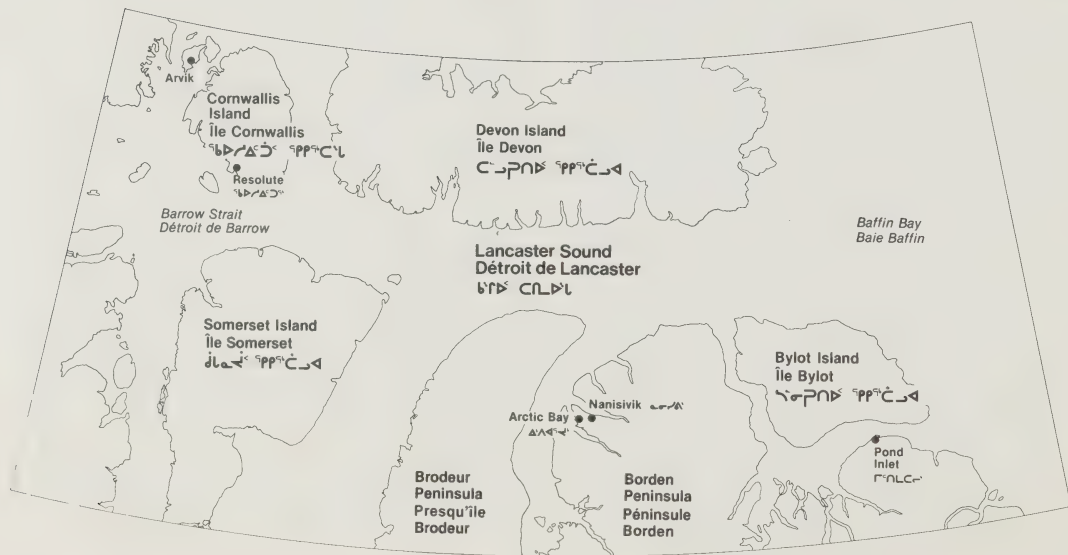
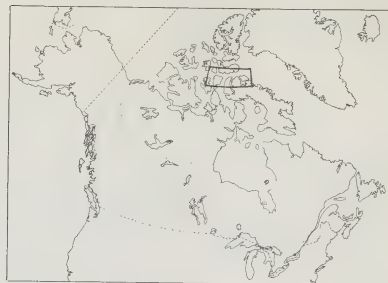
Lancaster Sound is a relatively short stretch of water in Canada's high Arctic situated at the eastern entry to the fabled Northwest Passage. The people and the environment form a unique aspect of Canada's natural and cultural heritage. The Lancaster Sound region is the richest and most biologically productive area in the Canadian high Arctic, possibly the richest in the entire northern circumpolar region of the world. The natural resources of the area continue to support an important population of Inuit who have lived at peace in this environment for centuries and who consider the region their homeland.

More recently, attention has focused on the need to transport important discoveries of oil, gas, and minerals in the high Arctic through Lancaster Sound to southern Canadian and world markets. More directly, the geological structure beneath the eastern sector of Lancaster Sound may well contain significant hydrocarbon reservoirs. Increased public awareness of the raw beauty of the northern landscape and the growing interest in its discovery has stimulated tourism in the region.

The relationship between the natural and human environments of the Lancaster Sound region has become subject to increased pressures for additional and new activities. As a result an intricate and complex set of issues has unfolded. Resolution of these issues will require a clear policy and coherent strategies designed to orient decisions that will guide the future use and management of the Lancaster Sound region. This report reviews the perspectives of a broad range of Canadians who have expressed both interest and concern for the Lancaster Sound region and who have responded to the question: ***What do you believe would be our best plan for Lancaster Sound?***

It is hoped that this report fairly and accurately reflects the nature and substance of the public review of the draft green paper, and that it will prove helpful in orienting and guiding the preparation of the final green paper on the Lancaster Sound region.

Study area for the Lancaster Sound Regional Study



Study Area

The geographic area of concern to the Lancaster Sound Regional Study is located towards the eastern part of the Northwest Passage, centered on Lancaster Sound, Barrow Strait and the adjoining channels and inlets between 73° and 99° west longitude. It includes the coastal zones and adjacent uplands of Devon, Cornwallis and Little Cornwallis islands, north to 75° 40' and of Bylot, Baffin and Somerset islands, south to 72° north latitude. The settlements of Pond Inlet, Arctic Bay and Resolute and the mining community of Nanisivik are situated within the study area. Grise Fiord is located north of the study area.

Draft Green Paper: Phase 1

A green paper is generally used as a discussion paper initiated by government as a means of generating public discussion and debate of a specific issue or policy question. A green paper develops a clear description of the issues in question and outlines a range of possible alternatives or options available to the government for their resolution.

The role of the green paper in the Lancaster Sound Regional Study is to stimulate organized and thorough discussion by the residents of the region, interested organizations, and concerned members of the public on the complex issue of determining the optimum future uses for the region's marine and land areas.

The draft green paper and the background reports that were developed in conjunction with it provided a summary of existing knowledge on the physical and biological environment, the current socio-economic situation, and the range of current uses of the study area. In addition, discussions of non-renewable resources, transportation, law and jurisdiction were described as they affect the Lancaster Sound region in particular and Canada's high Arctic in general. The entire set of information was designed to facilitate marine- and land-use planning and decision-making in the region. Much of the acquired data base has been developed in graphic form as a preliminary data atlas (Government of Canada, 1980a-h).

Public Review: Phase 2

The first phase of the Lancaster Sound Regional Study was designed to define the goals and objectives of the study, to collect and analyze information about the region, to identify conflicts and compatibilities of existing and potential activities, and to identify alternative strategies or options with respect to the use and management of the region.

The second phase focused on a comprehensive public discussion and review of the draft green paper produced at the end of Phase 1 of the study. This second phase included three interrelated activities: review by the four communities of the Lancaster Sound region, a northern workshop held in Resolute, N.W.T., and a southern workshop held at Carleton University, Ottawa.

The preliminary data atlas and the draft green paper were reviewed by the residents of Arctic Bay, Grise Fiord, Pond Inlet and Resolute as information was collected and published. A member of the Lancaster Sound working group,¹ Kenn Harper, explained the process and products of the first phase of the study during several visits to these communities. Comments, suggestions, and proposed corrections to the subject matter contained in the preliminary data atlas and the draft green paper were collected during public meetings in the four communities in April of this year. Public discussions in the four communities were chaired by the head of the Lancaster Sound working group, Dr. Herman Dirschl (T: 008-014).² In early May, a northern workshop, held in Resolute, focused on the regional perspective with respect to the future of Lancaster Sound. Comments and suggestions derived from the community visits and the northern workshop (T: 207-217) were transmitted to the participants of the southern workshop in late May, where a broad range of national perspectives with respect to the use and management of Lancaster Sound were articulated (Appendices A to D).

¹For more information on the study organization, see Appendix D of the final green paper.

²Refers to transcripts listed in Appendix A.

The Green Paper: Phase 3

This report summarizes the comments and suggestions proposed by members of the communities of the region, people who work or have interests in the region, and Canadians at large.

Recommendations contained in this report are intended to guide the Lancaster Sound working group as they proceed to prepare the final version of the green paper, including the definition of alternatives for the use and management of the region.

The Department of Indian Affairs and Northern Development is committed to further public review once the final green paper has been completed. During the northern workshop, community representatives were invited to suggest how such a review might proceed. They proposed that the format be based on the one used for the northern workshop, with a few modifications. Proposed changes to the format consisted of the following points.

First, communities must have time to review the final draft of the green paper and to discuss it among themselves. They recommended a period of six months for this review.

Second, community representatives should meet for two days, in camera, at the site of the second northern workshop to discuss and to co-ordinate their viewpoints.

Finally, a three-day public workshop should be convened to debate the options contained in the green paper and to provide government with a detailed and complete range of reactions to its proposals.

Public awareness groups and community representatives wondered why other communities affected by the possible development in the Lancaster Sound region, and those who lived outside the spatial limits of the study area, were not invited to attend the workshop. One participant commented that whales and other marine mammals could not recognize a line dividing waters between Canada and Greenland and, thus, that people from Greenland

should also be invited to participate. Clearly, a national and public workshop to review the final green paper must also allow for the participation of all interested Canadians, many of whom were present at the northern and southern workshops.

The final green paper, or a succinct summary, should be addressed to all Canadians to tell them where Lancaster Sound is, to inform them of the importance of the region, and to outline the use and management options for the region as proposed by government. In one of the written submissions to the workshop (S-18),³ an unofficial poll taken on the streets of Ottawa revealed that "only 25% of those interviewed had ever heard of Lancaster Sound, only 8% said they were aware of the issues involved, and only 2% knew that the green paper existed." Whether these figures represent the most advanced state of the art of public opinion polls is irrelevant. The fact remains that the northern frontier, and Lancaster Sound in particular, is an issue worthy of national public attention. Government must increase its efforts to achieve this objective.

Industry and government have commented that this study of a northern region is an experiment, a prototype exercise in the initial stages of regional planning north of 60°. The credibility of the process has been questioned, but the majority opinion weighs heavily in favour of this initiative by government. A number of participants have warned, however, that the process must become more efficient and expeditious in the future. Further public review must not unduly delay the process of ministerial and Cabinet review of the options that will be outlined in the green paper.

Both the government and the public must commit themselves to prompt action. Government must develop, print, and distribute the green paper within an accelerated timeframe, no later than the end of this year. In turn, the public must agree to accord its review of the green paper the priority it so deserves.

³Refers to written briefs, Appendix B.

It is suggested that the workshop be chaired by an impartial member of the public whose role would be limited to assuring the smooth functioning of the workshop and the provision of a brief summary to government of the proceedings.

01 Recommendation

It is recommended that public review of the final green paper on the Lancaster Sound region should occur within three months of its distribution to the Canadian public. Public review should conclude with a two-day meeting limited to community representatives and those they may wish to invite, followed by a three-day public workshop.

02 Recommendation

It is further recommended that government publish a communiqué addressed to the Canadian public detailing the objectives of this final phase of public review of the green paper. The communiqué should include the timeframe for the production and distribution of the final green paper and the dates and the location of the final public workshop.



Herman Dirsch

2. The Lancaster Sound Region in Context



Kalluk Paniluk, Pond Inlet

Erin Bowne

Numerous comments and written submissions during the Lancaster Sound workshops stressed the fact that the region was an important area for the Canadian nation as a whole and that the international importance of the region could not be ignored. Notwithstanding the fact that the Lancaster Sound Regional Study focuses on specific spatial boundaries in the high Arctic, its role extends far beyond these geographical limits. Supporting literature and background texts on the high Arctic reinforce this view (Appendix E).

The purpose of this section is to review and to group the broad issues raised during the workshops - specifically the global, national and regional roles that Lancaster Sound enjoys. The premise submitted during the workshops was that options for the use and management of the region could not be assessed properly in the absence of some discussion of the broader factors that bear on the geographical limits of the Sound as defined by the Lancaster Sound Regional Study.

Global Context

At least three fundamental issues relate Lancaster Sound to the broad perspective of world view and interest: (i) growing world demand for raw materials and sources of energy, (ii) rapidly disappearing areas of wilderness and relatively undisturbed natural environments, and (iii) the sovereignty of our national territory. Each of these issues was discussed during presentations to the plenary session and during the four work group sessions held at Carleton University. Although discussions did not dwell on these issues, they do form an essential framework for the public review phase of the study. To some, these are key issues of concern.

Non-renewable Resources

"More than 7 million m³ per second of warm, saline water rushes into the Arctic basin, to drive its mid-depth currents and act as a heat vent. Because this body of water has washed both the coasts of North America and Western Europe, it funnels pollution straight

into the Arctic. Air borne pollution from temperate zone industry too is sucked northwards and fouls the Arctic air.

"The permanent ice cover - some 10 million km², 30% of the world's sea ice - is important because it releases annually 3 500 km² of ice into the North Atlantic and through the Baring Strait" (Young, 1981).

The Arctic is thus an important component of complex and global physical systems. It is also the potential source of worldwide demand for non-renewable resources. The Mining Association of Canada (S-07) estimated that world demand would double in the next 20 years and that "the northern areas of our country are going to be increasingly in the forefront of Canadian mineral development" during this period. In *The National Energy Program* (Government of Canada, 1980i) it is stated quite clearly that the need to discover and to market new sources of oil and gas is essential to the future economic well being of the nation. It is evident that Canada's balance of payments throughout the world is closely linked to non-renewable resource development.

Renewable Resources

In 1979, an Environmental Assessment and Review Panel was held to examine an application for exploratory drilling for hydrocarbon reservoirs in Lancaster Sound. Virtually unanimous opinion was expressed that the area supports a diverse and large number of marine mammals, birds, and other life forms.

The Canadian Nature Federation (S-17) noted that:

- Plankton numbers and diversity were higher in Lancaster Sound than in most marine waters of Canada's high Arctic.
- Arctic cod were an order of magnitude more numerous in Lancaster Sound than in the Beaufort Sea.
- Birds that migrated, rested or fed in Lancaster Sound numbered

as high as two or three million, representing over 50 per cent of Canada's entire eastern arctic population.

- One third or more of North America's narwhal population moved through or summered near Lancaster Sound.

The degree to which these wildlife populations can be affected by impacts derived from year-round shipping, exploration and production of non-renewable resources - or quite simply waterborne or airborne pollutants - is the subject of increasing speculation and debate. These issues are not limited to Canada.

The *World Conservation Strategy*, developed by the International Union for Conservation of Nature and Natural Resources (1980), is subtitled *Living Resource Conservation for Sustainable Development*. This strategy notes that "if the object of development is to provide for social and economic welfare, the object of conservation is to ensure earth's capacity to sustain development and to support all life." The strategy proposes three specific objectives essential to living resource conservation:

- to maintain essential ecological processes and necessary life-support systems on which human survival and development depend;
- to preserve genetic diversity, which is essential to programs of breeding and the improvement of plants and animals and to the development of scientific research and technical innovation; and
- to ensure sustainable utilization of species and ecosystems that support millions of rural communities as well as major industries.

The use and management of the Canadian high Arctic in general, and Lancaster Sound in particular, must be conceived so that these universal objectives are indeed respected. Failure to do so will impact on our native communities and Canadian populations to the South and will influence the delicate fabric of the global network of species and populations including those that are human.

Dr. Svoboda noted in his presentation to the southern workshop that "organic life is a subtle phenomenon anywhere in the world, more so in the Arctic. It is a fine hair on the global skull which is in many areas bald anyway" (T: 531).

Sovereignty

The Arctic Committee of Monaco (Inuit Circumpolar Conference, 1980) notes that "every activity in the polar environment leaves a lasting imprint, and every enterprise has an increased effect on a world where the reparatory capacity of man, as of land and the sea, is considerably reduced and remains subject to the rigorous dictates of the climate. This implies a sense of responsibility on the part of all parties interested in the Arctic... Nations can no longer be regarded as mere 'possessors' of areas of common interest to mankind, but rather as 'temporary managers' of permanent and collective resources."

At present, Canada's claim to sovereignty over the Arctic Islands is recognized, and the waters within the archipelago, including those of the Northwest Passage, are internal Canadian waters. However, the usefulness of the Arctic and its strategic importance with respect to non-renewable resources, military position, and even as an untapped source of fresh water for a drought-stricken world is recognized by many nations. Consequently the issues of use and management of the region will be subject to pressures beyond strict Canadian control. "The greater part of the high Arctic is high seas, and the natural resources of the waters and the waters themselves are unprotected by international agreement" (Young, 1981).

Ships carrying oil from Alaska may well move through the Northwest Passage and thus through Lancaster Sound subject only to the Arctic Waters Pollution Prevention Act, the sole federal legislation designed to regulate arctic shipping at this time. Canada has extended its territorial sea from 3 to 12 miles, and has extended its Exclusive Economic Zone as a fisheries zone to 200 miles. However, these actions to exert some control over shipping in the Arctic have been contested by the United States of America.

The legal issues involved are treated with clarity and in greater detail in a background paper distributed to the participants of the southern workshop (Pharand, 1980).

A previous workshop that focused on Lancaster Sound (Roots, 1979) noted: "the fact that other nations such as the United States have a growing interest and activity in Arctic matters, while Canada's own position is unclear, continues to cloud the planning for regions such as Lancaster Sound."

Clearly, the global issues that deal with renewable and non-renewable resources and with sovereignty and control are an important aspect of the use and management options to be presented in the green paper.

03 Recommendation

It is recommended that the identification and elaboration of options for the use and management of the Lancaster Sound region take account of and discuss the global implications of the conservation and/or use of renewable and non-renewable resources of the high Arctic, and that the issue of sovereignty and control of the high Arctic be addressed where appropriate.

National Context

The government of Canada's national objectives in the North (Government of Canada, 1972) were articulated more than nine years ago before the Standing Committee on Indian Affairs and Northern Development by the Honourable Jean Chrétien. The government's stated objectives for the decade, as expressed in *Canada's North 1970-1980*, were:

- to provide for a higher standard of living, quality of life, and equality of opportunity for northern residents by methods compatible with their own preferences and aspirations;

- to maintain and enhance the northern environment with due consideration to economic and social development;
- to encourage viable economic development within regions of the northern territories so as to realize their potential contribution to the national economy and the well-being of Canadians;
- to realize the potential contribution of the northern territories to the social and cultural development of Canada;
- to further the evolution of self-government in the northern territories;
- to maintain Canadian sovereignty and security in the North; and
- to develop fully the leisure and recreational opportunities in the northern territories.

Consistent with these objectives, the Department of Indian Affairs and Northern Development outlined its concern for the native peoples of the North, and developed strategies to deal with the implementation of the government's objectives. The report to the standing committee further noted that "the absorptive capacity of the regional economy concerned must be carefully assessed to determine what needs to be done to prepare the region and its people for public or private projects contemplated" (Government of Canada, 1972, p. 31).

The entire Lancaster Sound Regional Study can be viewed as a logical response to the national objectives, strategies, and requirements outlined in *Canada's North 1970-1980*. Many, if not most, of the government's objectives remain viable today.

Government emphasis has shifted and will continue to shift among the seven objectives cited above. In particular the National Energy Program reflects Canada's growing concern that we "must establish the basis for Canadians to seize control of their own energy future through security of supply and ultimate independence from the world oil market" (Government of Canada, 1980i).

The "need-to-know" policy is the abbreviated phrase that summarizes Canada's concern that potential oil and gas supplies be docu-

mented on all Crown lands and in national waters. The National Energy Program notes that Canada already produces more energy than it consumes and yet conventional oil supplies from Western Canada are being depleted and new energy sources will require large investments before Canadian oil from frontier regions is delivered to market.

Frontier energy supplies have thus assumed increasing importance in Canada's stated objective to attain oil self-sufficiency within the decade. The stimulus for the Lancaster Sound Regional Study is, of course, directly related to the nation's interest in exploring, developing and delivering arctic gas and oil to southern Canadian markets. The unique route for delivery of arctic energy resources is through Lancaster Sound.

To what extent can the stated national objectives outlined in *Canada's North 1970-1980* be reconciled with the "need-to-know" policy and the policy of the National Energy Program? National policy, as expressed by the National Energy Program, would allow hydrocarbon development north of 60° to proceed only in a way that is "environmentally and socially sound." But what are the criteria by which we can judge acceptability in the North? How certain are we of the information that we have acquired with respect to the biophysical and social regimes in Canada's high Arctic? What is our capacity to predict future states of these variables when faced with new development proposals for year-round shipping through Lancaster Sound?

In its brief submitted to the workshop, the Department of the Environment (S-01) noted that "much of the concern in Lancaster Sound arises from the considerable lack of information to apply to the problem of predicting the effects of such activities (oil exploration, development and shipping) on the environment." The brief further noted that "in response to current and projected development activities in the Arctic, experts will be required to make more and more refined judgements and recommendations related to the environmental effects of particular activities. These judgements can

best be made on the basis of experience and knowledge of the basic processes involved in Arctic ecosystems." The brief urged, among other items, that "Environmental Science Programs undertaken by Government and Industry be expanded to include an operational component designed to mitigate or prevent actual project related impacts in addition to studies to investigate the basic ecological processes within Arctic ecosystems."

The workshop "Lancaster Sound: Issues and Responsibilities" (Roots, 1979) suggested that "in many crucial areas, there are neither sufficient fundamental data nor an adequate understanding of resource characteristics and environmental processes to enable technical, social, or economic issues to be put within the context of their environmental and resource setting. At present, the financial, intellectual or policy contribution by the government to ongoing regional research is insufficient to enable the results from all studies - by industry, Government, or Universities - to be fitted into a coherent body of knowledge of the region."

The relationships among the seven objectives of the Department of Indian Affairs and Northern Development, the goal of energy self-sufficiency within the decade, and the need for co-ordinated research in the North are only three of an even larger number of jurisdictional and regulatory control issues in the high Arctic. The Department of Fisheries and Oceans (T: 391-399), the Department of Transport (T: 412-417), Petro-Canada (T: 374-379), and the government of the Northwest Territories (T: 366-369), all presented briefs to the workshop outlining their concerns and mandates with respect to the use and management of the high Arctic.

At issue is the multitude of factors involved and the confusion that arises in the absence of co-ordinated government policy for the Lancaster Sound region. One of the participants (a representative of Petro-Canada) addressed this issue in a very forthright manner on behalf of many of the workshop participants. He suggested that scientists may help to determine certain environmental thresholds

and that developers can identify possibilities. But he insisted that local people and government must have the tenacity, courage, and the ability to articulate their goals and objectives. The issue used to illustrate this point was that of native land claims. "On the one hand the Inuit tell us (Petro-Canada) that they don't want us anywhere near them until land claims are settled; on the other, the Government tells us that we had better take care of our commitments to our acreage or we will lose it. . . . It is very confusing and very frustrating for us to be involved in this process" (T: 464-466).

There are a number of other anomalies that were raised during the public review of the draft green paper. The need to clarify existing policies north of 60° and to develop new policy statements is pressing. Whereas it is generally recognized that the working group and steering committee of the Lancaster Sound Regional Study do not have a mandate to develop new policy on behalf of government, clarification of existing policy with respect to the use and management of the Sound was sought throughout the workshop sessions.

04 Recommendation

It is recommended that the use and management of the Lancaster Sound region be discussed with reference to existing national policy in those sectors of government where such policy is known to exist. It is further recommended that policy, policy conflicts, or the absence of national policy be discussed within the context of all major issues raised in the green paper.

Regional Context

As Mr. Justice Berger so eloquently stated in his report of the Mackenzie Valley Pipeline Inquiry (Berger, 1977a):

The issues we face are profound ones, going beyond the ideological conflicts that have occupied the world for so long, conflicts over who should run the industrial machine and who should reap the benefits. Now we are being asked: How much energy does it take to run the industrial machine? Where is the machine going? And what happens to the people who live in the path of the machine?

Clearly, one of the dominant themes addressed during the public review of the draft green paper focused on Canada's own North-South dialogue. To what extent are the potential benefits of northern development directed towards southern residents?

Time and time again, representatives of the four northern communities rose to question even the few northern economic benefits that were alluded to in the draft green paper. Many residents suggested that additional jobs in the mining sectors were redundant, and all questioned the reduction in freight rates that were projected should northern development of oil and gas occur (P-01, P-02).⁴

In his closing remarks to the workshop "Frontier Oil and Gas - The Decade Ahead," A.E. Pallister suggested that "while the discussions during the conference were adequate to reach conclusions and recommendations with regard to industrial benefits, such was not the case on the more complex subject of local benefits." He recommended that we concentrate on the local scene with strong participation by residents of the Yukon and the Northwest Territories.

Whereas the issue of local benefits from northern development is recognized as a concern, little has been accomplished to address this issue squarely and in detail.

⁴Refers to material generated during the public review process; see Appendix C.

05 Recommendation

It is recommended that appropriate attention be given to a clear analysis of projected economic, social, and ecological benefits that may be derived by the residents of the Lancaster Sound region for each option explored.

Notwithstanding the benefits that may be derived from development north of 60°, the social costs associated with such development were clearly perceived to be borne primarily, if not exclusively, by residents of the region, and more specifically by the Inuit. Based in large measure on this perception, one condition and a number of clearly articulated objectives were outlined by the residents of the region.

The primary condition for further large-scale industrial development in the North, as articulated by the residents of the region, was that native land claims be settled first. Key objectives focused on fuller participation in the planning, management, and decision-making processes that would directly affect those who live within the region, and on the maintenance of future life-style options for the residents of the North.

One of the key components in the drive towards a meaningful relationship within Canadian federalism is the recognition of the rights of aboriginal peoples in general, and the Inuit in particular. This goal and the creation of a separate "Nunavut" territory are intimately involved with comprehensive land claim settlements. "Land claims encompass a vast number of issues, from land use and wildlife management to the political future of the northern residents. . . the completion of the land claims process will have very real effects on the political, social, and economic future of the residents of the North" (Ittinuar, T: 493).

In his presentation to the southern workshop (T: 493), Peter Ittinuar noted that "the Inuit have never taken an unqualified anti-

development position. We recognize fully that the national interest is important, but we are saying that the regional interest is equally valid, especially in terms of moral and ethical standards." Land claim negotiations are the forum where these issues will be resolved. The resolution of native land claims was generally regarded as an issue requiring immediate attention during public review. However, no consensus was achieved concerning the role or weight to be assigned to this issue within the green paper, per se.

There was, nonetheless, a high degree of consensus that native land claims must at the very least be mentioned within the context of the green paper.

06 Recommendation

It is recommended that the green paper note the position of community representatives, the Inuit Tapirisat of Canada, and the Baffin Region Inuit Association with respect to native land claims as they affect development in the Lancaster Sound region and that appropriate mention be made of current negotiations between the government of Canada and Inuit Tapirisat of Canada to resolve this issue.

Those Inuit who participated in the community meetings and those Inuit who represented them in the northern and southern workshops view their homeland as an indivisible whole.

Less than 20 years ago the high Arctic was relatively untouched by southern industry. Rapid changes during the last 20 years, however, have disrupted traditional life-styles. "Organized municipal administrations, the direction of social and economic programs and the availability of wage employment have encroached upon our culture, our social behaviour, our traditional economy and to some degree our environment. The culture and lifestyle based on traditions closely associated with the land and the sea for subsistence is suddenly faced with the reality of southern values based on ma-

terial goods and the wage economy" (Allooloo, T: 484).

There is little wonder, therefore, that a key objective expressed by all northern residents was their overriding need to participate in the decision-making processes that affect their homeland and their culture.

The résumé of the report on the community meetings held in early April (P-01) noted that "the overriding concern of all communities is that the Inuit be given the opportunity to actively participate in decision-making on the future of the Lancaster Sound region. In their view this will come about only through the settlement of land claims." The Inuit Tapirisat of Canada noted in its brief (S-04) that "the Inuit communities have rejected the creation of more and more ad hoc advisory committees." There was, in fact, a high degree of consensus among workshop participants from government, industry, the Inuit, and special interest groups that meaningful participation be accorded those most directly affected by northern development.

The settlement of native land claims and meaningful participation in the decision-making process north of 60° are both closely related to the maintenance of life-style flexibility for future generations of Inuit. Many spoke of balancing traditional hunting activities with wage-earning opportunities and all insisted that any development that effectively reduced hunting, fishing and other traditional options was unacceptable.

Peter Aglak (T: 60-69) stated his position on behalf of Pond Inlet in the following words: "Lancaster Sound is the home of marine mammals and animals and that is where they rest and live peacefully and once there is major activity going on they would get excited and restless and then they would move out of the area that is being tampered with. . . . Our main concern on wildlife and marine mammals is because we want our next generation, our children, to see and be in the same environment where there will be mammals."

It would be misleading to suggest that the maintenance of life-style options is an issue of concern limited only to the Inuit. The literature of this country is filled with the search for alternative life-style options. Support for the need to maintain traditional ways of life in the North was expressed implicitly and explicitly in both the northern and southern workshops. Furthermore, it is the stated policy of the Department of Indian Affairs and Northern Development (Government of Canada, 1972) to recognize the right of the Inuit to choose between "old and new ways."

07 Recommendation

It is recommended that impacts on the existing and future pursuit of traditional life-style activities, and on the needs and aspirations of the local Inuit communities with respect to their own social, cultural, and economic development, be analyzed for each option described in the green paper.

Education and training are directly related to the maintenance and improvement of life-style options and to the development of alternative opportunities for northern residents of the region. Local communities, government and industry are convinced that suitable wage employment and the possibility of career advancement in technological areas and business management positions depend largely on the creative and appropriate provision of new educational and training opportunities.

One of the work groups proposed that "the relevant community, government, and industry groups jointly assess the requirements for technical, professional, and management-oriented education as well as the need for providing career options related to traditional values, and that a balanced and far-sighted educational program be created which fulfills the objectives of northern communities" (P-07).

The need for government to initiate, support, and where appropriate,

co-ordinate such activity is pressing if a viable link between the North and the South is to be forged.

There is an overriding concern among the Inuit that we lack an adequate understanding of the full implications of future development in the North. There is fear and concern that culture, life-style, economy, and ultimately the environment of the North will be destroyed. "In our minds we are concerned that the technology that is available today is inadequate to mitigate any foreseeable disaster in the Arctic waters" (Allooloo, T: 488-489).

Frequent reference was made to the need for more time to adjust to the rapid rate of change north of 60°. A somewhat slower pace "would give the oil companies a chance to improve their technology in drilling and clean up. This slower pace would give both companies and government agencies a chance to better understand our deepest concerns. It would also give us an opportunity to satisfactorily negotiate land claims. We need the chance to prove ourselves and to solve problems that have already hit us as a result of southern influence and to strive towards the future for ourselves that we can share with the rest of Canada" (Allooloo, T: 488-489). Clearly this concern for time to adjust is reinforced by the sense that "once shipping is introduced through Lancaster Sound then it would open other channels for other activities in the future" (Pitseolak, T: 205).

More time would also provide an opportunity for the education and training of northerners so that they could derive real benefits from future development. "It takes people time to change their living habits . . . if there were a period of time in which there were no new developments . . . people would have an opportunity to up-grade their education and their training in order to take advantage of development when it does take place . . . there would also be time for political developments so that northerners could take part in a management plan and have more control over development" (Tagak, T: 025-026).

Evidently there are two quite different clocks operating in the context of the high Arctic. The first is precise, measured and waits for no one. The second is more elastic, tuned to the needs of a people who are accustomed to reflecting on the relationship between man and nature.



Herman Dascht

3. Perspectives on the Use of Lancaster Sound



Wayne Greenall, Consultant

Julian Hoggis

The role of the green paper on Lancaster Sound as defined by the steering committee of the Lancaster Sound Regional Study is to stimulate organized discussion on "the complex issue of determining the optimum future uses for the region's marine and land areas."

Background papers and a preliminary data atlas were developed to collect, organize, and communicate existing information in the Lancaster Sound region, and to identify sectors where information was missing or insufficiently developed (Government of Canada, 1980a-h). The draft green paper submitted to public review relies heavily on this work. It devotes 80 pages to a written synthesis of the background information necessary to achieve an understanding of the issues that affect, and will continue to affect, the region.

Throughout the public review phase of the Lancaster Sound Regional Study letters were received commenting on the information provided in the background documents and in the draft green paper. Questions were raised and corrections were proposed by a range of scientists and citizens who were familiar with or interested in the region. Additional comments were made during the community meetings and the northern and southern workshops held between early April and late May of this year. It is the stated intention of the working group of the Lancaster Sound Regional Study to review these comments and to revise or otherwise correct the background information contained in the draft green paper prior to issuing the final green paper.

The Eastern Arctic Marine Environmental Studies program (EAMES) is a comprehensive scientific investigation of a marine arctic ecosystem jointly sponsored and developed by government and industry. The EAMES program was developed in response to the statement in 1976 by the Minister of Indian Affairs and Northern Development that "drilling in the area (eastern Arctic) would not be permitted until a comprehensive environmental assessment had been conducted. . . ." The purpose of the program is to investigate

the offshore and nearshore waters and the marine life of this biologically important area and to obtain sufficient data to prepare environmental impact statements (EIS) (Government of Canada, 1981).

During the southern workshop members of the EAMES advisory board raised an important point with respect to the data base of the draft green paper (T: 469-471).

An intensive biological and oceanographic research program was carried out by Petro-Canada for several years under the umbrella of the EAMES program. Unfortunately, the results of these studies have been held as proprietary information and as yet have not been released by Petro-Canada. Thus the data were not available to the working group when assembling the data base. For this reason, the data atlas was produced in preliminary form, subject to correction when these data would be accessible.

George Eckalook, Vice-President, and Andy Thériault, Secretary, of the EAMES advisory board, noted that it was "difficult to understand how the Green Paper information and atlas and related scientific documentation could form a base for assessment and identification of scientific and biological information when consideration is given to the fact that the latest studies and results (gathered in the last three years) were not available to the Working Group" (T: 471). The advisory board stressed the fact that they were in no way questioning the integrity of the information provided for public review.

08 Recommendation

It is recommended that Petro-Canada should immediately release the results of the research studies conducted under the EAMES program so that this body of information can be properly incorporated into the data base and utilized in the preparation of the final green paper.

Scientific information as well as public review is subject to interpretation. In the absence of perfect knowledge of a complex region there are a number of ways that information can be discussed and interpreted. It is the task of the working group of the Lancaster Sound Regional Study to weigh and evaluate all information available to them and to judge the validity of each point of view. The green paper will thus reflect the best scientific and professional judgement of the working group with regard to current information relevant to the study.

Strategies for Public Review

Two strategies were developed by the working group to guide discussion on the future of the Lancaster Sound region during the public review phase of the study.

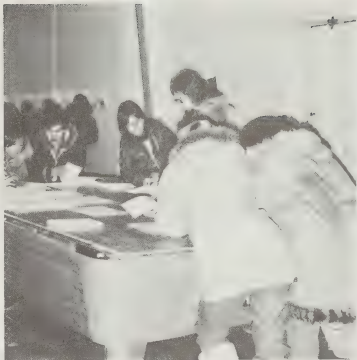
The first and more formal strategy was incorporated into the final chapter of the draft green paper. Four questions were formulated about the changes that would occur with or without industrial development in the Lancaster Sound region:

1. Should new major industrial development be deferred until safe technology and greater understanding of environmental, social and economic relationships are available?
2. Should parks and reserves be formally designated before new industrial development is allowed?
3. Should shipping be expanded at this time to include year-round transportation of oil and gas?
4. Should there be a determined program to develop the resources of the Lancaster Sound region?

These questions were based on four main concerns that the working group felt reflected the different perspectives and values existing within Canadian society:



Julian Ingis



Julian Ingis



Julian Ingis

Murray McComb,
Parks Canada



Julian Ingis



Julian Ingis

Herman Dirschl, Project Manager, Lancaster Sound Regional Study, Department of Indian
Affairs and Northern Development

- *National interest*: all Canadians should share the country's resource wealth.
- *Protection of the environment*: all Canadians have an obligation to ensure the continued viability and beauty of our natural environments.
- *Life-style flexibility*: people should have the opportunity to select or maintain a satisfying life-style.
- *Appropriate technology*: to prevent accidents or disasters, or to minimize the impact of development to an acceptable level, appropriate technology must be used.

Each of the four questions was addressed to the public along with an outline of implications and a brief evaluation of these questions in light of the concerns outlined above.

Reaction to this strategy was mixed. During the northern workshop Titus Allooool speaking on behalf of the four communities in the study area stated that since there were no policy options in the draft green paper, it was rather difficult for the communities to react (T: 015). The Baffin Region Inuit Association felt that as no options were developed in the draft green paper, there was a need for further public consultation once such options were developed (T: 034). Greg Thompson speaking on behalf of the Inuit Tapirisat of Canada asked why the draft green paper did not contain a review of the various development options relevant to Lancaster Sound and reiterated the need to repeat the public review process once such options were available (T: 071).

Partly in response to the comments of the northern workshop participants and partly as a means of structuring the large number of participants at the southern workshop who were divided into four work groups, the Lancaster Sound Regional Study working group developed a background paper as supplement to the green paper to assist workshop participants in reviewing options for the future

use and management of the Lancaster Sound region (P-03).

The second strategy to guide public discussion was then formulated. Based on an outline of possible developments in the Lancaster Sound region and on a list of principles for the development of the region generally acceptable to the working group, four sample options were proposed for discussion:

- to postpone approval of new development proposals for at least five years;
- to promote conservation and educational developments immediately, while precluding approval of industrial developments for at least five years;
- to initiate industrial development on a limited, phased and controlled basis; and
- to promote all viable development subject to project approvals within the existing regulatory framework.

Both approaches developed by the working group to guide public review have strong similarities, particularly if they are viewed not as defined options for the use and management of Lancaster Sound, but as scenarios or development strategies. Combined, the four questions and the four sample options offered a range of possible development strategies to which participants could react during the public review phase of the study.

However, a strategy is meaningful only with respect to a defined set of goals and objectives developed with respect to a stated set of policies. For the purposes of this review, it is assumed that the policy outlined in *Canada's North 1970-1980* (Government of Canada, 1972) represents such a policy position and that the goals and objectives of each development strategy have been articulated in view of concerns that deal with the national interest, protection of the environment, life-style flexibility, and appropriate technology. This assumption is made solely for the purposes of reviewing the various comments made during the public review phase of the study.

In fact, a number of comments (T: 380-390, T: 464-466) were made on the absence of such policy goals within the draft green paper and the need for this absence to be redressed in the final green paper.

09 Recommendation

It is recommended that the elaboration and discussion of options for the use of Lancaster Sound be explained with respect to existing government policy on energy and on the North, including relevant regulations and directives. Within this context, goals and objectives for each use option postulated in the green paper must be fully developed.

Range of Options

The range of development strategies inherent in the four questions contained in the draft green paper and the four sample options discussed in the southern workshop were generally agreed to be representative, although somewhat vaguely defined. The range of strategies included:

- deferring major development activities in the region for a period of time that would allow land claims to be settled, improved education and training to be provided in the North, and increased scientific and technical knowledge to be acquired;
- according priority to conservation concerns in the North and to traditional activities or to development activities such as tourism that are perceived as compatible with traditional Inuit activities;
- providing the opportunity to establish a range of pilot development projects related to industrial activities in order to explore, on a limited basis, the impacts of non-traditional activities on traditional life; and
- stimulating new development within the constraints of existing regulatory and evaluation controls.

In all four options and questions, future industrial development of

one form or another was implied. Some participants argued strongly for "bookend options" particularly where the protection of the northern environment was concerned. Tony Gaston (P-04) suggested that the biological importance of the region on a national and international scale warranted serious consideration of a conservation option for the entire region. Dr. Svoboda (T: 530) proposed that "we protect everything first and then make exceptions later, to protect what was passed on to us as a heritage of long evolutionary history, delicately toned to the northern climate and its geography." Chris O'Brien (T: 513) suggested that "wildlife has a value and a right to exist for its own sake, whether or not it serves any useful purpose for mankind, and that unspoiled wilderness is the single most important resource in Northern Canada." He cautioned that "if our present approach to development continues, allowing activities to proceed without guarantees that environmental damage will be prevented, then the wildlife populations of Lancaster Sound and the people who depend on them for their cultural survival will eventually be swept aside and die" (T: 515).

In current environmental practice, it is not unusual that a proponent be required to discuss an alternative "not to develop." Recognizing that the "no development" alternative does not represent the majority view of the public review process, it does represent a serious and, as yet, undeveloped option for use of the Lancaster Sound region.

10 Recommendation

It is recommended that the range of options for the possible use of the Lancaster Sound region be expanded to include an option not to develop industrial activity in the area. This option should be discussed with respect to appropriate policy goals and objectives. The impacts of such an option, both positive and negative, should be fully developed in the green paper.

One alternative to the four options suggested by the working group was proposed by Don Gamble on behalf of the Canadian Arctic Resources Committee (CARC). He suggested that the need to define specific options based on specific proposals developed from existing knowledge and relying on current biases might be an important obstacle to good long-range planning (T: 38l).

CARC has proposed that the emphasis of the green paper on the development of specific options for the use of the Lancaster Sound region refocus on a process by which the region can be managed with respect to a variety of uses both existing and proposed. The proposal that the green paper focus on management options and less on options for use was sufficiently important and reflective of the public review process that it is dealt with in the following chapter.

Responses to the options presented for public review tended to group either on the basis of a predominant concern for the national interest, and therefore for the development of the resources of the high Arctic, or in support of protecting the northern environment. The Inuit representatives of the four northern communities argued eloquently and convincingly for the maintenance of life-style options.

In *World Conservation Strategy* (IUCN, 1980), *conservation* is defined as "the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations." It is further noted that "living resources have two important properties the combination of which distinguishes them from non-living resources: they are renewable if conserved; and they are destructible if not."

Development is defined in the same publication as "the modification of the biosphere and the application of human financial, living, and non-living resources to satisfy human needs and to improve the quality of human life. For development to be sustainable, it

must take account of social and ecological factors. . . ."

Development Perspective

Public review during the community meetings and at the workshops focused on the development of non-renewable resources north of 60° and on Inuit uses of renewable resources. The relationship between the two is evident only insofar as the processes necessary to develop the first - drilling, supply, shipping - has a direct impact on the activities necessary to utilize the second - hunting, fishing and travel.

Presentations made on behalf of the mining companies operating north of 60° stressed the fact that not all industrial activities required the same set of services and support nor did all industrial activities exert the same or even similar influence on the environment.

In distinguishing between industrial activity and development, Jacques Gérin (T: 249-250) noted that "drilling is an industrial activity, and development is change that is beneficial to people. Development doesn't occur without change but everytime we dig a hole we're not creating development we're creating industrial activity."

In a set of briefs (S-06, 07, 16) the mining industry argues that "modern technology as it applies to exploration, mining and milling of metals such as zinc and lead is safe" and that "existing laws, regulations, and procedures are adequate to insure safety with respect to exploration and mining of minerals." Response to the question "Should new development be deferred?" was clear: "it is neither in the national interest nor in the interest of Canadians living in the North to defer mineral exploration and new mine development." In support of this position the Cominco brief (S-06) cited much needed job opportunities and the opportunity for wealth creation available from expanding sales of Canadian minerals to world markets.

The mining industry's response to the question "Should parks and reserves be designated prior to allowing new development activity?" was an emphatic no! Recognizing that "there may be local areas of specific environmental sensitivity and that appropriate arrangements could be made to meet particular needs, there need not be a blanket restriction" (S-07). As now regulated by government, "mineral exploration poses very little threat to the environment" (S-06). Further arguments against this strategy included the observations that "exploration activities are relatively clean and harmless" and that "advancements in exploration technology make it possible to locate mineral resources today where previous searches failed. . . hence permanent access for exploration may be required in many locations" (S-16).

It should be noted that different types of conservation areas are subject to different levels of protection. Vern Wetzel (S-20) speaking on behalf of Suncor Inc. noted that Suncor had successfully drilled two wells within the Kendall Island Bird Sanctuary, and one well in a calving area and throughway for beluga whales on an offshore island, all within prescribed regulations and without negative impacts (T: 603).

In general, mining in the high Arctic does not depend on year-round shipping, whereas the oil and gas industry does. The third question "Should there be year-round expansion of shipping through the Northwest Passage and thus through Lancaster Sound?" stimulated two important statements during public review of the draft green paper.

In the first instance Dome Petroleum (T: 416-430) reviewed its efforts to develop arctic marine shipping beginning with the redesign and testing of new ideas and technologies on the icebreaker *Kigoriak*. Designed as an experimental class 4 vessel, the *Kigoriak* provides support to drill ships in the Beaufort Sea and serves as an important source of research and development information with respect to the behaviour of ice in the high Arctic. Information derived from the use of the *Kigoriak* is critical to the design of a via-

ble oil tanker in the high Arctic.

Conceptual drawings of the proposed oil tanker were illustrated with slides, and a detailed review of the design factors necessary to assure a safe arctic tanker was developed in an accompanying paper (Johannsson and Stubbs, 1980, and S-15). A good deal of time was devoted to review of the ship track of the *Kigoriak* and its effect on hunters and on wildlife.

Dome Petroleum indicated its intention to commission a multipurpose ship in 1982 to support a drill ship to be commissioned at approximately the same time. Thus, Dome expects to have a vessel capable of conducting research cruises through the Northwest

Passage on a year-round basis. The review of Dome Petroleum's activities concluded with a brief discussion of their oil-spill research, developed in greater detail during a second presentation by Dome Petroleum later in the workshop (T: 497-512, S-17).

Clearly, Dome has invested an enormous amount of time, energy, money, and above all professional and technical expertise in confronting the problems associated with year-round shipping through the Northwest Passage and thus through Lancaster Sound.

Dome Petroleum has concluded that "the development of an environmentally safe arctic tanker is technically feasible and that the fast development of computer and remote-sensing technology will make the operation of the tankers predictable and safe." (Johannsson and Stubbs, 1980, and S-15).

Thus, Dome Petroleum is convinced, on the basis of its current experience in the North and more specifically on the research conducted on the *Kigoriak*, that **the design and development of an environmentally safe arctic tanker is technically feasible.**

This premise gives rise to the second significant statement related to year-round shipping in the high Arctic. In response to a question

by Mr. Nesbitt at the end of Dome's presentation Harry Palmer reiterated Dome's intention **"To develop a safe and sound system to ship oil by 1986"** (T: 428). Clearly, this intention throws doubt on the nature of the Arctic Pilot Project, which was designed to test year-round shipping of liquefied natural gas (LNG) through the Northwest Passage by Petro-Canada in collaboration with its partners, including Dome Petroleum. The very nature of a pilot project is to test, over time, the particular problems inherent in a proposed activity. A pilot project is only a pilot project if on the basis of the results obtained there is as reasonable a possibility to reject or to modify a proposal as there is to accept it.

During the northern workshop, where this intention was also announced by Ed Pessah on behalf of Dome (T: 082), Titus Allooloo asked "How can the Arctic Pilot Project be a pilot project when Dome wants to start the same year as the Arctic Pilot Project wants to start?" He further noted that "we are concerned for environmental reason about the Lancaster Sound region being used for shipping gas. We are ten times as concerned about oil being shipped through the Lancaster Sound region. I think on behalf of my community that we don't know enough at this stage to ship oil through Lancaster Sound" (T: 083).

Mr. Hornal, a member of the EARP panel that reviewed the Arctic Pilot Project proposal noted that "we felt that the project as described by Petro-Canada would offer valuable information before the Government had to make a decision on expansion of shipping to include other petroleum products. In short I think that the EARP Panel would be very concerned if we learned that oil tankers were to move simultaneously with the LNG tankers; that was not the proposal we were considering and certainly that has not been approved" (T: 087-088).

Don Gamble suggested, however, that "it would be unwise to prematurely rule out something about which we know nothing. The data on exactly what Dome is proposing is unknown right now and although I think I share everyone's misgivings about tankers I don't

think it would be a credit to any planning exercise to exclude anything before it had been properly looked at" (T: 039).

The Department of Transport has adopted the strategy that they must develop appropriate plans, within their mandate, designed to identify realistic year-round shipping proposals and to prepare responses for the provision of arctic marine services based on the most demanding scenario from a service and regulatory viewpoint (S-14). Over the next 20 years, if development of oil and gas continues at the current pace, perhaps 1 000 ships a year might well be moving through the Northwest Passage (ITC, 1981).

The issues raised by this subject extend beyond the mandate of the Lancaster Sound Regional Study. They may well affect the entire Environmental Assessment and Review Process as well as the programming and planning of Petro-Canada in the region. The credibility of the green paper exercise may well be suspect in the eyes of the Inuit, or conversely, it may be that public review has served an important function in bringing to light a new and critical factor in the discussion of the future of the region. Irrespective of the view adopted, the issue has been raised and must be dealt with in the green paper.

11 Recommendation

It is recommended that the possibility of accelerated year-round shipping of LNG and oil be clearly identified in the green paper, and that the social and ecological impacts associated with such development be fully detailed.

The final question developed in the draft green paper was "Should there be a program to explore and develop the resources in Lancaster Sound?" In this regard, James Hea (S-05) speaking on behalf of Energy Mines and Resources noted that "the Federal Government has the responsibility for ensuring that the assessment and development of non-renewable resources on Crown

lands are undertaken for the benefit of all Canadians and with due regard to the welfare of their inhabitants and the protection of the environment" (T: 276).

He reviewed the new technology used in petroleum exploration and drilling that has resulted in the discovery of major hydrocarbon accumulations. He also outlined a brief history of arctic exploration in northern Canada since the 1950s, mentioning the fact that over \$1 billion of exploratory and drilling expenditures has been devoted to evaluating and selecting the most promising acreage.

The "need-to-know policy" has stimulated exploration in arctic Canada as well, and the discoveries of major oil and gas reserves are significant. "There are 100 or more undrilled structures in the Beaufort Sea and to date, of the 11 structures drilled in the off-shore, there have been five discoveries, some of which are major in both oil and gas."

Mr. Hea noted that Lancaster Sound is a potential area for oil and gas and that "the technology exists to drill exploratory wells seasonally in Lancaster Sound with confidence for the safety of the operation and protection of the marine environment under federal drilling regulations" (T: 280). Notwithstanding this fact, however, and based on the fact that Lancaster Sound "is only part of the wider petroleum resource potential of Northern Canada," Mr. Hea concluded that **"We would like to know whether it contains commercial fields of oil and gas but we do not need to know immediately."**

The distinction between a policy based on the "need-to-know" and a statement on behalf of government that "we would like to know" cannot be minimized. The most direct impact may well be felt by Norlands Petroleum and Magnorth Petroleum, who have held acreage in Lancaster Sound for some time. They believe that "it is imperative that Lancaster Sound/Baffin Island be included in exploration plans." Among other reasons, they noted that the Dundas structure "is one of the largest, untested geological anom-

alies in Canada and has the potential of producing more than three or four billion barrels of oil" (S-10). Pressure to drill in Lancaster Sound has been alleviated by the stated position of the Department of Energy, Mines and Resources. The statement does not imply, however, that there is no interest in the Sound; only that there is not an immediate need to know.

Whereas it is difficult to synthesize the development perspective, particularly as the views are generated by different interests in the high Arctic, a number of observations can be derived from the public review process. There is a clear need to clarify northern policy and the "rules of the game" with respect to industrial development of non-renewable resources. There is a complementary need to co-ordinate government initiatives with the regulation and control of the full set of developmental impacts that might occur with development of the region and the high Arctic. Secondary and tertiary impacts, such as supply stations and temporary work sites, may be as important elements of change as the primary proposal itself. The cumulative impact of development north of 60° is also an important factor of concern. It is not clear that project by project review can properly address this latter issue. Consequently the need for an appropriate management framework for northern development was viewed as an essential element of government policy and action in the North.

Conservation Perspective

The book-end option to declare the entire Lancaster Sound region as a conservation area has already been introduced in this report. In his submission to the southern workshop, Chris O'Brien (S-18) developed the conservation perspective with conviction and clarity. He noted that "even with increased amounts of data there will always be serious limitations to the predictive capabilities of ecology, and long-term chronic pollution and the unknown problems associated with continuous disturbance of the ice regime in the Sound will make prediction even less reliable." His attitude towards conservation and development was that "allowing for the ebb and flow of natural events, we cannot predict what wildlife population levels

will be in Lancaster Sound five hundred years from now, but we can make sure that populations will never decline due to any failure on our part to take proper environmental precautions. The only way to ensure this is to adopt a policy of no-risk development in the Sound and adjacent areas.'

The Manitoba Naturalists Society (Letter 5I) believes that Lancaster Sound is very much a southern Canadian issue. "Southern energy and mineral demands have created most of the existing development pressures on the region. Northern economic development schemes are largely devised and implemented by Southerners for Southerners." The society is concerned by "the potential conflicts posed by the natural uniqueness of the region, the native life style, and the aspirations and development (or non-development) schemes of outside interests." This concern leads the society to support the alternative "southern demand," namely that the Sound be designated as a world heritage site and that the creation of parks and reserves be proclaimed forthwith.

As might be imagined, the conservation perspective with respect to the four questions developed in the draft green paper is every bit as consistent as the development perspective (S-08 and S-18, Letters 47, 50 and 5I). In response to the question "Should development be deferred?" the answers were uniformly positive, based in part on the belief that there is a lack of available background data that are necessary to assess potential environmental and social impacts, and that present technology is relatively untested in the region.

Parks and reserves should be formally designated before new industrial development is considered, although the Tourist Industry Association of Canada (Letter 50) notes that a park ultimately becomes a major tourist attraction and that "Parks Canada has not, in the view of our industry, done an effective job of planning for tourism before establishing parks. . . . Parks planning must go hand in hand with tourism planning. Protection of the environment extends well beyond parks and must in this area be an important

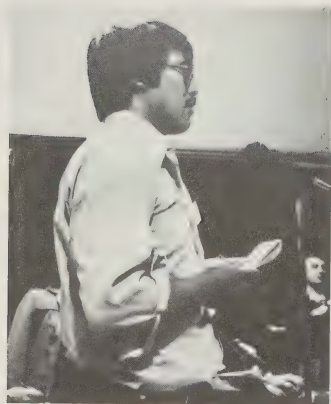
underlying consideration in all planning."

Shipping should not be extended at this time to include year-round transportation of oil and gas, particularly as the EARP panel gave qualified approval to limited year-round LNG transport, stressing the uncertainties and the need for close regulation and monitoring of environmental impacts.

A program to explore and develop the resources of the Lancaster Sound region was rejected based on the rationale that short-term accelerated development schemes were a dubious spur to the evolution of environmentally safe technologies, that the risks of serious pollution and detrimental environmental effects were too high, and that the region was an inappropriate choice for technological experimentation.

A broad range of conservation concerns was developed in the Canadian Nature Federation brief (S-08, Letter 47) that focused on the "exceptional biological productivity supporting a great diversity and large numbers of marine mammals, birds, and other life forms" in the Lancaster Sound region. Conservation concerns included, but were not limited to, questions about the degree to which potential oil spills from arctic tankers would affect marine life, especially birds. The brief noted that the degree to which marine mammals such as narwhal, beluga whales, seals, and walrus could be affected is open to speculation. The submission stressed that "the disruption of sea ice by tankers or cargo vessels and the competition from free ice leads could have serious effects on wildlife as could the noise and physical presence of ships by disturbing feeding and reproductive behaviour."

The federation argued (Letter 5I) that there was a tendency to view any conservation action in the North as part of a major land grab, whereas "the last three decades have seen a great erosion of the public wildlife reserve system that once existed in Northern Canada."

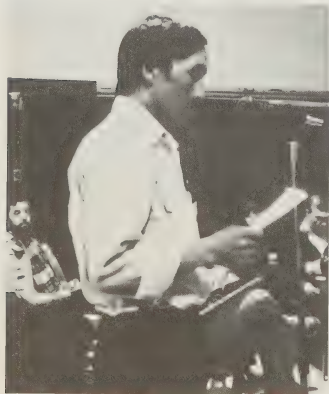


Titus Allooooloo, Pond Inlet

Julian Ingles



Julian Ingles



Jobie Nutarak, Pond Inlet

Julian Ingles



Ken Yuen, Department of Fisheries and Oceans

Julian Ingles

As a consequence, the federation proposed that a national park reserve (pending settlement of native land claims) be established in the Bylot Island and Eclipse Sound area. The intentions of Parks Canada in this regard were in accord with the federation's proposal (S-02), and community support for the national park reserve was expressed at both the northern and southern workshop sessions. In addition, six environmentally sensitive areas have been identified by IBP (the International Biological Programme).

The federation noted that all seven sites were open to some form of industrial exploitation, including the Bylot Island Bird Sanctuary. Recognizing that the federal government has an opportunity in Lancaster Sound to establish parks and reserves before the area is affected by industrial exploration and development, the federation urged that all seven sites receive protection as national parks, wildlife areas, or ecological reserves.

One additional issue addressed by the Manitoba Naturalists Society (Letter 51) is of direct relevance to this section. The society asked, "What will happen to the economy of the region after the oil is gone?" The letter suggested that "more stable economic possibilities are needed. Tourism is one such possibility because it permits a more traditional life-style to be combined with wage-earning opportunities and many of the wage-earning opportunities would benefit from and be more in keeping with the experiential skills and knowledge of the Inuit." This viewpoint was reinforced during the northern workshop by Titus Allooloo (T: 019), who suggested that the Inuit would like to experiment with a tourist industry before any other industry occurred.

Current development pressures focus on the use of non-renewable resources. There is a consequent imbalance in the research effort devoted to non-renewable versus renewable resource development. Yet, the background reports prepared for the working group of the Lancaster Sound Regional Study contain good data on the state of the biological (renewable) resources of the region. Long-term solutions to economic development based on renewable re-

source use by the residents of the region have not been sufficiently detailed in the draft green paper.

12 Recommendation

It is recommended that use options for the future of Lancaster Sound be developed based on the sustaining use of the renewable resources of the region. Social and ecological impacts associated with such development should be fully detailed in the green paper.

Summary

In *World Conservation Strategy* (IUCN, 1980) the premise that conservation is a process to be applied cross-sectorally, not an activity sector in its own right, is developed. "Conservation and development have so seldom been combined that they often appear - and are sometimes represented as being - incompatible. . . . The goal of the World Conservation Strategy is the integration of conservation and development to ensure that modifications to the planet do indeed secure the survival and well being of all people."

The four questions developed in the final chapter of the draft green paper imply an either/or choice between conservation and development. The set of sample options moderates this apparent hard line choice and maintains a conservation perspective in three of the four sample options proposed for discussion.

The draft green paper states that change will occur in the region even without development activity, and conservation viewed as a cross-sectoral process will be necessary in some instances and in some places irrespective of the level of development activity that will occur in the region over the next 20 years.

13 Recommendation

It is recommended that a conservation strategy be developed for each option proposed in the green paper. Relative priorities as to the nature and location of conservation activities in the region should be clearly identified.

Jacques Gérin, Senior Assistant Deputy Minister, Department of the Environment, has noted that today's frontier is different in at least three respects:

- democracy has evolved and people will have their say about what is happening to them;
- the impacts on the physical environment can be extremely significant; and
- the impacts on social and economic development can be better identified and directed so that we have an opportunity to ensure that there are benefits, and that these benefits accrue in some equitable way to those who bear the costs.

He noted that "instead of a comprehensive approach to a comprehensive objective, we have segmented and specialized our roles, true to the teachings of our technical civilization but not good enough for the development of our last frontier" (Gérin, 1980).

Decisions with respect to the Lancaster Sound region have been made, and are currently being reviewed, that conform to the sectorial vision described above. Consistent with a proposal developed during the southern workshop (P-07), the green paper must attempt to illustrate the interdependencies of data and issues to ensure that decisions are taken from a basis that includes the greatest amount of information.

14 Recommendation

It is recommended that the relationships between development and conservation proposals, land claims, existing agreements, controls, and policies, and community views of possible impacts on the biological milieu be discussed for each use option developed in the green paper in order to better inform the public of the opportunities and constraints inherent to each use strategy or option.

4. Management of the Region:

A Consensus



Ernst Broune

A variety of perspectives as to the future uses of the Lancaster Sound region were expressed during public review. Irrespective of the perspective held, however, virtually all participants agreed on the urgent need for a planning process and structure for the high Arctic in general, and the Lancaster Sound region in particular. Consensus on the need for a planning framework as a means of managing future uses in the region was one of the clearest and most convincing reactions to the green paper derived from the public review process.

Consensus to Plan

Among government departments and/or agencies supporting the need for a planning process, the following perspectives are representative.

The Department of Fisheries and Oceans (S-12) noted that "many of the factors at play are dynamic processes, and there is no question that planning assumptions will continue to evolve and change. Therefore, it is our belief that the Regional Study must lead to the establishment of a management framework involving the participation of the various interests in Lancaster Sound and that this framework must incorporate a continuing planning process."

The Department of the Environment (S-01, T: 247-257) stressed their support of a legitimate planning process, a process that would be based on a clear recognition of community as well as national views that would be applied to every region of the North. The department was of the opinion that no major development should proceed without a systematic planning process to set goals and strategies for a region and the designation of those responsible for advising on the preservation and enhancement of the environment.

Petro-Canada (S-10) noted that "one of the major recommendations from the recent workshop in Montebello, Quebec, was that regional planning must become a tool to set in place a policy framework within which rational development can proceed."

Petro-Canada's whole-hearted endorsement of the principle of regional planning is not without some reservation. "Local people need to be involved to the degree that reflects their interest in and dependence on the study area. This includes the formulation of issues." Petro-Canada also expressed concern that the planning process may supercede established rigorous review procedures for the evaluation of current project proposals and noted that "it is essential that the planning exercise continue as effectively and expeditiously as possible."

The government of the Northwest Territories (S-09) agreed that "there is a need for an ongoing and systematic process for the development of Canada's far North," and recommended "the establishment of a Lancaster Sound Regional Planning Board under federal legislation to work out and implement a plan for the orderly development of the natural resources of the region."

Independent submissions during public review also stressed, indeed insisted on, the need for a regional planning process. In particular, briefs submitted by the Canadian Arctic Resources Committee (S-11), the Department of Man-Environment Studies, University of Waterloo (S-13), and the Department of Geography, Carleton University (S-19) were all based on the firm belief that a northern planning process was the key component of the wise use and management of Canada's last and least known frontier.

The brief submitted by students from the University of Waterloo (S-13) suggested that we "recognize the need of northern people to take more control over the process itself, and to have 'time' to establish their own institutions and planning frameworks." The brief focused on and developed four possible futures for the Lancaster Sound region, each based upon different policy objectives and priorities. These possible futures went well beyond the options outlined in the draft green paper and included scenarios based on ecosystem preservation, a renewable resource economy, balanced renewable and non-renewable resource development and conventional economic growth.

The brief from Carleton University (S-19) recommended the establishment of a permanent "Arctic Islands Authority" as a Crown corporation. The authority would include specialists competent to deal with "the planning and monitoring of non-renewable and renewable resource development" among other concerns. A Lancaster Sound Bureau would be established to serve as an experimental model for the management of the Northwest Passage and for future regional bureaux, north of the mainland territories.

The Canadian Arctic Resources Committee (S-11) cautioned that "focussing on concrete options based on specific proposals may limit our ability to establish a creative planning framework for the Lancaster Sound region." CARC proposed that the green paper "concentrate on the options for developing a planning mechanism based on agreed management objectives and not particularly on specific projects or activities." It also proposed the establishment of a Lancaster Sound Interim Planning Committee whose objectives would include among others:

- developing the full potential of Lancaster Sound in the regional interest within the constraints of the national interest;
- developing a single co-ordinated regional response to governmental and industrial interests;
- defining issues and solutions or matters that affect the people and resources of the region; and
- recommending specific policy and planning approaches that would help to maximize opportunities and alleviate conflicts in the management of the region.

The brief noted that "we have time to plan, to settle land claims, and to tend to the other business pressing upon the North and Lancaster Sound. It is a simple matter of planning in the regional interest within the proper constraints of the national interest."

Community representatives endorsed the need for a planning process in the North at both the northern and southern workshops, subject to three conditions. These included (i) the need to settle

native land claims, (ii) full and meaningful participation in the planning, management, and decision-making process, and (iii) the adoption of a set of principles that would guide the proposed planning process.

Participation in the Planning Process

Peter Aglak's perception of the green paper, expressed during the northern workshop (T:061), was that "it is just a planning process for approval of hydrocarbon exploration and shipping routes." The credibility of the planning process inherent to the Lancaster Sound Regional Study has been shaken by the approval of the Polaris Mine on Little Cornwallis Island and the approval of the Arctic Pilot Project shortly after the study was announced (T:031). Obviously, the residents of the North feel that their participation in the planning process is essential if their values, priorities, and concerns are to be fairly represented. The Inuit are equally clear in their desire to participate in the decision-making process, and in their rejection of the proliferation of ad hoc advisory committees.

This perspective was reinforced by the four work groups formed during the southern workshop. All agreed that some form of interim planning body was needed to oversee development in the Lancaster Sound region with representation at the community, regional and national levels. Suggestions for membership varied from a board composed of essentially non-government members (as proposed by CARC) to a tripartite board derived primarily from the public service (as proposed by the Northwest Territories government). Most proposals recommended a membership of which at least 50 per cent would be northern residents.

The Department of Fisheries and Oceans was not specific in its support for a continuing planning process, but did state that the participation of the various interest groups in Lancaster Sound was essential to the establishment of a management framework (S-12).

Petro-Canada (S-10) stated quite simply that local people needed to be involved to the degree that reflected their interest in and de-

pendence on the study area. The Department of the Environment (T: 247-257) warned that the proposed planning process must be assured of a community base that was legitimate, not only in the eyes of elected representatives and officials in Ottawa, but legitimate in the eyes of the communities involved. One brief (S-19) stated quite succinctly that "native peoples should have a role in formal decision-making processes related to development of the Lancaster Sound region."

Planning Principles

The Canadian Arctic Resources Committee sponsored a workshop in 1979 (Roots, 1979) that established seven principles for the development and protection of Lancaster Sound. These principles were proposed as management objectives for the region and as the basis for the development of specific policies and detailed plans (S-11) and were eventually endorsed by representatives of the four communities in the Lancaster Sound region, the Baffin Region Inuit Association, and the Inuit Tapirisat of Canada. Others with interests in the region, including Dome Petroleum and Petro-Canada, have responded favourably. Adoption of these seven principles as well as the settlement of land claims is a stated prerequisite for further support of development activity in the region by the Inuit.

These principles were submitted to the southern workshop participants by CARC during their presentation (S-11) and were reviewed by the four work groups. In addition, the Lancaster Sound Regional Study working group proposed seven principles derived from the CARC principles as part of their background paper prepared for the southern workshop (P-03).

However, workshop participants felt that a number of issues had not been properly covered in the seven principles proposed by CARC or those put forward by the Lancaster Sound working group. Work group B (P-05) suggested that the Lancaster Sound region would benefit from some additional planning guidelines and that the following issues should be addressed: land claims, the need

for flexibility in the choice of life-styles by northern residents, and whether or not development is necessary.

All work groups devoted considerable time during the southern workshop to the review of the proposed principles. Two of the work groups chose to modify some of the CARC principles and recommended their revisions to the workshop in plenary session. Because this activity was a central and critical part of the public review process, the seven principles proposed by CARC and some comments by work group participants are included below.

1. Maintenance of Biological Productivity and Environmental Quality

During and subsequent to any human activity in the Lancaster Sound region, the basic biological productivity and the resilience and viability of the ecosystem should be maintained. (No species or component of the biological system should be seriously disturbed, endangered, or extirpated by human actions).

Comments: It was recommended that the last sentence (in parentheses) be dropped, and that principles 2 and 3 be reversed as it was felt that CARC's second principle provided necessary elaboration on one aspect of its third principle. It was further suggested that CARC's principle could be improved by using the expression "environmental quality," and by emphasizing that the environment is both human and biological.

2. Interrelationships Between Biological, Technical, and Social Concerns

In considering the need for knowledge and the concerns that ought to be taken into account in making decisions for formulating policies affecting the Lancaster Sound region, attention must be given to three distinct types of problems:

- those related to knowledge of the ecological requirements of living things and the effects on biological systems of artificial (man-caused) or natural perturbations of the environment (mainly biological problems);

- those related to increasing the feasibility, safety, and efficiency of any industrial or technical operations under consideration for the region (mainly technical and physical problems); and
- those related to social, cultural, and community development, and the needs, values, and aspirations of the human inhabitants of the region (socio-economic and cultural problems).

It is important that the interrelationships between these types of problems be given adequate attention.

Comments: Work group C stressed that the interrelationships of these three problems should be the main thrust of this principle.

3. Integrated Environmental Management

Environmental stresses caused by petroleum, mining, and other industrial developments in the Lancaster Sound region should not be considered in isolation. The potential and cumulative impacts of all activities and their interactions must be considered in developing management and environmental protection measures for the region.

Comments: The initial text by CARC was revised and clarified by work group B and is cited above.

4. Rights and Responsibilities of Northern Residents

Northern residents and communities have special rights and responsibilities with respect to the use of Lancaster Sound and the protection and management of its resources. It is important that they be given the information and means to exercise those rights and responsibilities (to a degree at least equal to the rights and powers that citizens in other parts of Canada have with respect to areas where they live).

Comments: There was a lack of consensus with respect to the last part of the principle (in parentheses).

5. Protection of Special Areas

Some specific areas (possibly extensive areas) and some species

or components of the ecosystem in the Lancaster Sound region deserve and will require special protection to ensure their continued existence and viability. This protection may be needed to prevent damage from the effects of a continuation or expansion of those activities that have been carried on in the past, and from cumulative social and non-consumptive developments, as well as from the effects of current and future economic industrial activity.

Comments: Although adopted, some felt that the intent of this principle was included in the first.

6. Regional and Long-Term Management

A regional and long-term approach, with due awareness of spatial and temporal variations must be taken regarding decisions on the use and management of the Lancaster Sound region. The regional problems and strategies should be addressed in the context of northern policies in general, and of national or regional policies in particular.

Comments: This principle was only slightly modified with respect to CARC's original.

7. Accident Prevention and Mitigation of Environmental Damage

The techniques and mechanisms used to prevent accidents that will affect the environment, or used to prevent serious damage to the environment in the event of accidents or unplanned incidents, should be an integral part of the evaluation of the benefits, risks, and costs of activities in the Lancaster Sound region. The degree to which such techniques or mechanisms are proven or demonstrated must be taken into account at the time that permission to proceed with any industrial development is being considered (or when plans for new settlements or extensive changes to present settlements are under review).

Comments: It was recommended that the last part of the principle (in parentheses) be eliminated.

The workshop sponsored by CARC (Roots, 1979) pointed out that "development includes all of the activities and changes which affect the social, environmental and economic characteristics and uses of the region. It does not only imply industrial development. It may be, for example, that no industrial development should occur in all or part of the region but there should be the planned development of protected areas or possibly parks."

Planning Processes

Adoption of the principle that guidelines for the management of Lancaster Sound were essential to the evolution of the Lancaster Sound Regional Study was virtually unanimous during public review. However, the brief submitted by the Department of Fisheries and Oceans (S-12) noted that "the real challenge with these principles, will lie in their implementation."

Dome Petroleum was of the view that "with proper planning and environmental design, development and the arctic environment can exist side by side" (T: 074). The Department of Fisheries and Oceans (S-12) warned, however, that "even though there exists biological and chemical oceanographic baseline data, knowledge of natural processes and population dynamics is not very good. As a result, we lack the capability to predict impacts accurately and to manage living resources in more than a general fashion. This, in turn, constrains us from optimal environmental design and planning."

A number of different planning formats were recommended during public review, most particularly by CARC and by the government of the Northwest Territories. Work-group reports (P-04 to P-07) confirmed the fact that "planning and management are the keys to implementation of principles when considering alternative futures for the region."

All proponents agreed that regardless of the form the planning body took it should be considered as an "interim" body, pending land claim settlements and the evolution of other political developments in the territories.

There was considerable discussion as to whether the planning body should be a committee, which is advisory by definition, or a board, which is regulatory. It was suggested that the planning body should manage aspects of the process within the region and play both a co-ordinating and an advisory role about issues involving national considerations. Both CARC and the government of the Northwest Territories recommended that the planning body develop a single, but co-ordinated, regional response (or regional plan) to government and industry. All participants, in fact, stressed the need for government to initiate policy, programs, and planning functions in the region rather than simply reacting to industry's initiatives.

Both CARC and the government of the Northwest Territories believed that interim planning measures could be developed that would "serve the immediate needs of the region and yet will remain flexible enough to accommodate future changes at the political level" (S-11). The government of the Northwest Territories saw "no harm in starting a planning process provided that the residents of the region are included and have an effective say in what should and should not happen" (S-09).

The department developed a background paper for participants attending a workshop on northern land-use planning held March 1981; it stated "a land-use policy is required that recognizes the national importance of non-renewable resources exploitation, the socio-economic significance of protecting the traditional land base for native use, and the national interest in environmental conservation." Dr. Maurice Ruel, speaking on behalf of the department during the southern workshop, noted that a policy for land use in the North "is being developed by the department to try to devise a system by which the type of conflicts that develop for use of a given area can be attacked or considered right at the start, and not wait until a conflictual situation develops" (T: 586).

This proposed departmental policy was submitted to Cabinet in July 1981 and addressed issues such as the form of a planning

body or bodies in the North, the extent of the mandate accorded these bodies, and the nature and extent of the composition and, thus, participation proposed for the planning body.

15 Recommendation

It is recommended that the department's policy position with respect to northern land-use planning be distributed to all those who participated at the community meetings and workshops in conjunction with the distribution of this report as a separate, but complementary, document essential for final public review of the green paper. It is further recommended that the green paper incorporate aspects of the policy paper and illustrate its application to the Lancaster Sound region.

Previous views on land-use planning north of 60° (Rees, 1978) have suggested that "systematic land-use planning must become a major component of northern development planning. . . indeed, it is most unfortunate that land claims and related negotiations have had to go forward in the total absence of a comprehensive land-use policy framework." A land-use policy framework will undoubtedly contribute to the co-ordination and integration of many of the issues that affect the high Arctic.

16 Recommendation

It is recommended that the proposed planning framework outlined in the policy paper of the department be tested forthwith in the Lancaster Sound region.

Insofar as only the skeleton framework of a northern land-use planning process can be developed in a policy paper, much work remains before a viable planning process can be established on an on-going and operational basis. Not the least of the questions that must be addressed is "How shall we plan?"



Evan Bowring



Rick Glyn

Peter Jacobs, Chairman, Public Review Phase



Evan Bowring



Evan Bowring

Bernard Pelletier, Department of Energy,
Mines and Resources

5. How Shall We Plan?



Julian Regis

Consensus was achieved during public review of the draft green paper on the need to plan, and on the need for guidelines and principles to direct such a planning effort in the Lancaster Sound region. Many of the characteristics of a proposed planning body for the region will be known when the Department of Indian Affairs and Northern Development releases its policy statement on northern land-use planning. It would appear, therefore, that the question "To plan or not to plan?" has been resolved. There remains, nonetheless, a major question hinted at throughout the public review process "How shall we plan?"

It is not at all evident that consensus to embark on a regional planning exercise for the high Arctic will *a priori* result in innovative and appropriate policy, strategy, and tactics for the use and management of the high Arctic or for any region of the high Arctic such as Lancaster Sound. In fact, the application of planning methods and techniques derived from southern Canadian experiences may well aggravate rather than alleviate problems related to the future use and management of the North. The intention of this final section is not to dampen enthusiastic support for a regional planning process north of 60°, but rather to suggest that such a venture must be truly adapted to the people and the place for which it is intended.

One issue at stake is the design of institutions and decision-making processes that might illustrate Canadian recognition of our own and distinct North-South dialogue. In order for our responses to this challenge to be meaningful and appropriate, we must be innovative. We cannot rely on the theory that those formulae developed in one context will necessarily be suitable in a context that is distinctly different or unique.

A southern, paternalistic planning approach with regard to the North would be one of the clearest signs that we are unwilling to learn and that we feel we are dealing from a position of superior knowledge. Our southern and northern peoples and traditions are neither inferior nor superior; they are different. If we plan, we must do so with as full an understanding of these differences as possible

and with an astute sensitivity to the range of values that underlie these differences.

One of the most fundamental characteristics of planning is the intellectual and cultural setting that supports the process. Whereas the Inuit seek consensus on those issues that affect them most profoundly, we are accustomed to debating public issues that are terminated and resolved by majority votes, frequently by elected representatives. Decisions based on adversary positions are distinctly different from those based on consensus. The process requires more time, is highly participatory, and directly involves those responsible for implementing a decision and those who will be directly affected by such a decision. Not surprisingly, a significant distinction between the North and the South is our understanding of time.

Time

Industry - and to a large extent the federal government - is concerned that expeditious decisions are required if Canadians are to achieve energy self-sufficiency, a favourable standing in the world marketplace, and the perception of competent management of their own affairs. The Inuit move to a different rhythm. It takes people time to change their living habits, time to adapt to the rapid rate of change in the North, and time to acquire the necessary training and education required to participate fully in the future development of their homeland.

Time is also essential if we are to understand the concerns of the Inuit and if we are to perfect the technology necessary to support our development proposals and to safeguard the environment of the North. Southern time is linear and sequential; northern time is cyclic and repetitive. Can we design a planning process capable of accommodating both? Must one concept of time dominate the other? Do we really believe that we have run out of southern time, or do we too have time to deal with this fundamental dimension of the planning process rooted in cultural perceptions?

Space

Our concept of space is equally bound by our cultural heritage. In the South, space has been divided and sub-divided since the first military engineers from Europe set foot on North American soil over 400 years ago. Land surveying and land division is a normal part of our view of the space that we inhabit. The theory of land-use planning relies heavily on the premise that different spaces can and should be used for different activities. Allocating exclusive uses to specific spaces is a familiar part of our Canadian urban experience. Occasionally, as in older western cultures, multiple-use areas have been designated for a combination of typical urban functions such as commerce, housing, and on occasion, small industries. Restricted use of space has been introduced in the urban fringe and in southern resource management areas to allow a range of compatible, but limited, uses to occur in the same place at the same time.

How applicable are these concepts of spatial division and the subsequent allocation of designated uses to the high Arctic where space has not been characterized by its divisibility, but rather by its extent and continuity? How much more difficult is it to trace lines on a territory where the distinction between land and water varies so radically from winter to summer? How much more difficult is it when we know that spatial segregations of northern and southern waters are predominately vertical, not horizontal, in form? Can we design appropriate planning methods and techniques - indeed a planning philosophy - to accommodate cultural and technical variance in our southern perception of space?

Appropriate Technology

Energy self-sufficiency in Canada is a stated national goal. To the South, the phrase implies secure sources of oil, gas, hydroelectricity, some marginal use of nuclear energy and other alternative energy sources. How appropriate is this vision for the North? Can we develop a planning process wherein the issues of energy self-sufficiency, shelter, and travel to name only a few, are appropriate to the context of Canada's high Arctic?

Appropriate technology, in short, is culturally based. It is not necessarily appropriate to all contexts at all times (western technology), but is by definition appropriate to a specific context during a particular period of time. When we speak of technology to assure that oil spills can be contained, that the weather can be properly monitored, or that biological populations can be correctly accounted for, we speak of only one of a number of technologies. As suggested earlier in this report, solutions to some problems perceived in one cultural setting, such as the "need to hunt," cannot necessarily be resolved with reference to the technology of another cultural setting that has created a constraint on the first by its "need to ship."

Form of Information

The very manner by which we deal with information is also culturally bound. The acquisition of data, its treatment, and the conclusions that we reach on the basis of this data are unlikely to be universally accepted. The problem is compounded when various departments of government or people with northern experience state quite openly that there are important gaps in our understanding even within carefully defined sectors of scientific enquiry. The issues are compounded when we attempt to integrate these sectors and to understand the dynamics of the ecosystems of the high Arctic. We have a tendency, if not a scientific ideology, to disaggregate complex systems in order to better understand them. It is unlikely that the system of Inuit knowledge and understanding follows the same paths of enquiry. To what extent have we tried to incorporate, let alone understand, centuries of Inuit observation of nature in our description and understanding of the high Arctic? Can the incomplete basis upon which we propose to erect a regional planning process afford to ignore, or to treat as marginal, the knowledge-base that has served a culture for thousands of years, a culture that lives at peace with itself and its surroundings?

Planning for Change

Throughout this report and particularly in the latter sections, stress has been placed on the need for a coherent policy framework and

guidelines within which the proposed regional planning process might function with due regard to our national interest. The Inuit participants throughout the public review process have articulated a clear and direct goal: the maintenance of life-style options. National goals as suggested in the second section of this report include those stated in the *National Energy Program*, and those outlined in *Canada's North 1970-1980*. To what extent can we design a viable planning process north of 60° that will accommodate and necessarily reinforce the realization of these sets of goals? Can we stretch beyond the simple maintenance of life-style options toward the qualitative and quantitative improvement of these options?

Planning deals with a future state and must consider changes that might occur between a given present condition and a set of possible future conditions. Within a range of possible futures some are more probable than others. Many of the issues raised in this report can be considered as a set of performance criteria against which our efforts to develop a planning process north of 60° may well be judged. These criteria are by no means exhaustive. They do not indicate some of the conditions and issues that must be incorporated into a viable planning process for the North. Failure to do so will undoubtedly lead to a certain and predictable future based on the goals, objectives, issues, and perceptions of the dominant southern culture of Canada.

The challenge we face is to move beyond this scenario towards a more thoroughly considered, adaptable future for the Lancaster Sound region. To do so will require imagination and patience; coherent policy and planning guidelines agreed to by those who have concerns in the region; pilot projects for transportation, research, education, and training to test our ideas. Most important, we need the will to persevere in developing an innovative planning and management process. Industry, government and northern residents will have to forego adversary roles and efficiency may have to yield to effectiveness so that we may ensure the cultural differences and heritage of the people who will be most influenced by this growth.

The challenge is, I believe, an exciting and productive adventure. Failure to accept the challenge only reinforces a "crisis of confidence" - a very real feeling that the decision-making process is insensitive where the needs and aspirations of Canada's northern residents are concerned.

To meet this challenge in the high Arctic and in the Lancaster Sound region in particular, government, industry, and the residents of the region must have sufficient time to establish, develop, and implement a viable land-use and water-use planning process.

17 Recommendation

It is recommended that a period of two years be accorded to the participants of the planning process in the Lancaster Sound region to establish an operational planning format and that approvals for year-round shipping and exploratory drilling for gas and oil be suspended until such time as the planning process is established.



Workshop organizers, from left to right: Joan Topolski, Martha Flaherty, Kenn Harper, Julian Inglis, Herman Dirschl, Margaret Ault, Rachel Qitsualik, Peter Jacobs, Marlene Charron, Terry Lee, Maurice Ruel, Nasira Saab.

The following section contains a brief summary derived from the official transcripts of the northern and southern workshops (Appendix A). Written submissions for public review (Appendix B), material generated during the public review process (Appendix C), and a small selection of letters sent to the Department of Indian Affairs and Northern Development or to the chairman (Appendix D) are also included for your information.

A short bibliography of texts that were consulted by the chairman appears near the end of the section (Appendix E); it in no way represents a complete or extensive review of the literature related to the diverse set of issues discussed during public review. The bibliography is followed by a list of those participating in the workshops (Appendix F).

The main purpose of this section is to provide workshop participants and those members of the Canadian public who could not attend the workshops with an idea of the nature of discussions that occurred and the extent of material that was presented.

The Department of Indian and Northern Affairs has established an "open file" in Ottawa of the complete set of background papers, official transcripts and correspondence related to the public review phase of the Lancaster Sound Regional Study.

The public is invited to write to the department for further information with respect to particular background papers or any of the written submissions, and is cordially invited to review the entire set of documentation retained on "open file" in the department.

Please address your enquiries to:
Dr. H.J. Dirschl,
Project Manager,
Lancaster Sound Regional Study,
Department of Indian Affairs and Northern Development,
Ottawa, Ontario K1A 0H4
Location: Room 631, North Tower,
Les Terrasses de la Chaudière,
Hull, Quebec

Appendix A

Summary Derived from the Official Transcripts

Northern Workshop

For the complete set of transcripts for the northern workshop, please refer to:

Jacobs, P. (Chairman), 1981.

Lancaster Sound Regional Study: Transcript, Public Hearing Held in the Community Hall, Resolute Bay, N.W.T. Prepared by Nethercut and Company Limited; Vol. 1 and 2; p. 1-223.

Hornal, R. T: 004-008
Regional Director, Department of Indian Affairs and Northern Development, outlines the department's goals with respect to the Lancaster Sound Regional Study and expresses the hope that communities and the scientific establishment can provide guidance to the department.

Dirschl, H. T: 008-014
Project Manager, Lancaster Sound Regional Study, reviews the results of the community meetings held in the region and notes that all Inuit communities want to actively participate in decision making on the future of Lancaster Sound, that the Arctic Pilot Project concerns the communities, particularly Resolute, and that the Inuit should be involved in any shipping control authority; stresses the need for a life-style that balances hunting with wage employment; points out that future generations should be able to decide for themselves whether they wish to become hunters or wage earners; and requests further public consultation, prior to decisions on the final green paper. (P-01)

Allooloo, T. T: 014-021
Speaking on behalf of the four communities in the region, notes that since there are no policy options in the draft green paper it is hard for the communities to react. The communities want a freeze on hydrocarbon exploration, certainly until land claims are settled.

A freeze would allow time for further education and training and further environmental studies. If development occurs, local people must become fully involved in the planning for the region.

Kalluk, D. T: 021-023
Speaking on behalf of Arctic Bay, notes a general concern for the arctic food chain upon which the Inuit depend, that mistakes in future use and future planning will affect future generations of Inuit, that the pace of development is too fast for the Inuit to adjust to, and that benefits from development are not likely to go to the Inuit until land claims are settled.

Audlaluk, L. T: 023-024
Speaking on behalf of Grise Fiord, notes his concern with the ability of government or industry to clean up after an oil spill.

Tagak, J. T: 025-030
Speaking on behalf of Resolute, notes that it takes time for people to change their living habits, that money derived from development is not staying in the North, and that year-round shipping will completely change the hunting styles in the Resolute Bay area.

Pumphrey, R. T: 030-038
Speaking on behalf of the Baffin Region Inuit Association (BRIA), notes that the Inuit want the opportunity to choose between a wage-earning economy and a traditional way of life and that year-round shipping threatens that choice; that further public consultation is necessary; that BRIA, the Inuit Tapirisat of Canada (ITC), and the Canadian Arctic Resources Committee (CARC) unanimously approve eight basic planning principles; that the people of the region should be the ones to benefit from their resources; and that there should be an enlarged steering committee with regional representatives.

Hornal, R. T: 045-050
States that the settlement of land claims is a priority of the government of Canada, but that during negotiations little can be said on the subject.

Dirschl, H.

T: 050-051

Notes that the working group of the Lancaster Sound Regional Study has no problem whatsoever with principles one through seven adopted by BRIA, ITC, and CARC. The principles and assumptions that underly each of the options in the final green paper will be clearly stated.

Gamble, D.

T: 051-052

Executive Director, CARC, notes that Petro-Canada and Dome Petroleum have no trouble with the principles and that there is a consensus that should be refined in the final green paper.

MacPherson, A.H.

T: 053-058

Regional Director General, Department of the Environment, comments on conservation, environmental protection, marine transport and the principle of a control agency, and on public consultation as an opportunity to influence decisions in the direction of the environmental factors and values that the Department of Indian Affairs and Northern Development seeks to promote. (S-01)

Hornal, R.

T: 058-060

Addresses the chairman, and states that the government is in favour of further consultation after the options have been developed in the final green paper.

Aglak, P.

T: 060-069

Speaking on behalf of Baffin Hunters' and Trappers' Federation, notes that even if Inuit are given good jobs they must still go hunting; they do not want the government to lessen their hunting rights, rather they would like to see hydrocarbon and mining activities lessened.

Thompson, G.

T: 069-072

Speaking on behalf of Inuit Tapirisat of Canada, notes that aboriginal land rights and Nunavut must be settled before major industrial development proceeds and that the draft green paper does not contain a review of development options; and asks whether gov-

ernment is now better equipped to deal with an application to drill in the Sound based on the draft paper.

Pessah, E.

T: 073-083

Speaking on behalf of Dome Petroleum, states that, with proper planning and environmental design, development and the arctic environment can exist side by side; that year-round shipping does not have to have significant lasting effects on the region's wildlife; that there should be substantial benefits to northern residents (royalties, ownership participation); that a hunters' and trappers' compensation board should be established; and that Dome anticipates shipping oil through the Sound in 1986.

Allooloo, T.

T: 083

Asks how the Arctic Pilot Project can be a pilot project when Dome wants to start at the same time. Inuit are 10 times more concerned about oil than about gas.

Hornal, R. et al.

T: 084-092

Make comments and responses to the question above.

Nutarak, J.

T: 097-102

Speaking on behalf of the Pond Inlet Development Review Committee, comments on the Indian Affairs and Northern Development document *Departmental Direction Plan for the 1980's* by quoting from the document and suggests that one alternative be that the Inuit manage and control Lancaster Sound. He also asks why other communities, even in Greenland, are not involved in these discussions.

Yuen, K.

T: 104-106

Speaking on behalf of the Department of Fisheries and Oceans, supports the idea of an advisory committee on shipping (and drilling) for the Lancaster Sound region, and states that such a committee should be built into the management options of the final green paper.

Nesbitt, T. **T: 107-108**
Asks whether the Inuit are asking to participate on an advisory committee or on a planning board. Titus Allooloo answers that participation on a management committee of the region for all development purposes is requested.

Hornal, R. et al. **T: 108-113**
Answer previous questions from the Inuit Tapirisat of Canada on absence of real options, no mention of native land claims, and whether government is now better prepared to deal with drilling applications in the Sound.

Britton, J. **T: 114-117**
Speaking on behalf of the Department of Economic Development and Tourism, N.W.T., notes that Lancaster Sound has tremendous tourism potential; the territorial government sees tourism as expanding the northern economy while not depleting any natural resources.

Wood, P. **T: 118-123**
Speaking on behalf of the Arctic Pilot Project comments on the methods of crossing ship tracks and on underwater sound impacts on marine mammals.

Chairman **T: 124-127**
Notes that the following issues were raised during the day: David Kalluk: "We don't want development unless we can have benefits We need time to upgrade education and training to better participate in future development." Jan Tagak: "How can we design strategies for the equitable distribution of the benefits and the costs of development for those who are most directly affected?" The Inuit have clearly stated that they want responsible jobs, and to be involved in management and the decision-making process.

McComb, M. **T: 131-137**
Speaking on behalf of Parks Canada outlines a preliminary proposal to develop a national park reserve in the area of Bylot Island

and Eclipse Sound. See S-02. Prince Leopold Island is considered an excellent prospect for the proposed Canadian Landmarks Program.

Gamble, D. **T: 138**
Hopes that the Department of the Environment and the government of the Northwest Territories could provide a comprehensive plan of environmentally significant land, rather than a long uncoordinated list.

Inglis, J. **T: 142-146**
A member of the Lancaster Sound Regional Study working group speaking on conservation planning refers to map 25 of the preliminary green paper, IBP sites. Polar Bear Pass is the only site being considered at the present time. He refers to map 6 and 14 and suggests that a comprehensive conservation strategy for the region be considered.

Daniels, T. **T: 150-152**
Speaking on behalf of the N.W.T. Chamber of Mines, believes that we cannot freeze out development, but that development can occur with appropriate concern for social and environmental impacts, with meaningful ways of sharing the benefits of development.

Eckalook, G. **T: 153**
Comments on the conflict between IBP site selection and industrial exploration activities, particularly in the Polar Bear Pass area.

Daae, D. **T: 154-156**
Speaking on behalf of Norlands Petroleums, notes that Norlands is in favour of establishing a national park reserve and outlines areas of the Sound of interest for offshore drilling and exploration; particular reference is made to directional drilling sites on Devon Island.

Kuppaq, K. **T: 163**
Feels that when development comes, IBP sites and even areas on Bylot and Devon islands will no longer be viable for wildlife.

Nesbitt, T. **T: 164-167**
Questions the positive impacts of employment and suggests that until the relative division of control and decision making is changed, employment will not solve very many problems.

Koolerik, P. **T: 167-170**
Directs questions to N.W.T. Chamber of Mines on the nature of their economic programs and to Norlands Petroleums on their drilling plans.

Allooloo, T. **T: 173-177**
Speaking on behalf of the communities, reiterates their position with respect to the Lancaster Sound region:

- no new development should occur until land claims are settled;
- a new management board should be established to decide upon and/or monitor all activities;
- improved education and training with a technical school introduced into the high Arctic;
- national park reserves should be established according to community needs;
- the final green paper must contain specific options and a plan for the region;
- definite reference to the possible effects of land claims must be made;
- compensation for damages from development should be fully discussed in the green paper;
- there should be two representatives from the high Arctic on the working group;
- when the green paper (final) is produced, it should be sent to each community for six months, then delegates should meet for two days prior to a two-to-three-day workshop in the North.

Thompson, G. **T: 178-180**
Notes that the Inuit Tapirisat of Canada, the Baffin Region Inuit Association, and the four northern communities do not accept that the green paper cannot address the issue of land claims. He cites

examples of national park reserves on Baffin Island and in the Yukon, and a caribou management board in the Keewatin as explicit recognition of the importance of land claims by the government of Canada.

Gamble, D. **T: 183-185**
Suggests that the position of no new development prior to land claim settlements be refined into two points: the problem of alienation of any discovered resource from the Inuit, and the undesirable effects of development on communities that have no real decision-making powers to influence them.

Horseman, G. **T: 185-191**
Speaking on behalf of Cominco, stresses the need for industry-community consultations from which Cominco can determine rotation schedules, whether to establish new communities or not, where people should live, and the effects on family life and lifestyles caused by industrial activity. In discussing education, formal education should and can be improved; role modelling and on-the-job training are extremely important as many jobs in the mining sector are unknown to northerners and southerners alike. He cautions that managers are not born, they take a long time to develop.

Tomaak, J. **T: 193**
Discusses land claims over the years and states that the Inuit want to control their own affairs because they want to be involved in development.

Eckalook, G. **T: 194-198**
Asks of Dome Petroleum: Will Dome use the same route as the Arctic Pilot Project? The hunters' and trappers' associations will refuse compensation. Will Dome be capable of cleaning up an oil spill by 1986 when they anticipate shipping oil?

Tagak, J. **T: 198-200**
Asks questions related to the benefits of development: particularly reduced freight costs, jobs and job training, business opportunities

in the communities derived from development, and finally the number of times a ship can move along the same track through heavy ice. (Answer: three times)

Pitseolak, P.

T: 204-205

Speaking on behalf of the Development Review Committee in Pond Inlet, notes that once (year-round) shipping is introduced in the Sound, other activities will follow. Further studies should be made with Inuit participation, but the Inuit feel that there should be no (year-round) shipping.

Chairman

T: 207-217

Summarizes the two-day workshop and comments on further public participation, native land claims, meaningful participation in the decision-making process, science and research in the North, the development of tangible options for the use of Lancaster Sound, the need for a conservation strategy, community development and the maintenance of life-style choices and the equitable distribution of costs and benefits derived from development.

Southern Workshop

For the complete set of transcripts for the southern workshop, please refer to:

Jacobs, P. (Chairman), 1981.

Lancaster Sound Regional Study: Transcript, Public Hearing Held at Carleton University, Ottawa, Ontario. Prepared by Nethercut and Company Limited; May 1981; Vol. 3, 4, and 5; p. 224-646.

Faulkner, N.

T: 229-235

Speaking on behalf of the Department of Indian Affairs and Northern Development, welcomes participants to the southern workshop and notes that the Lancaster Sound Regional Study is "a pilot study for the integration of an integrated, comprehensive regional planning process." After reviewing the study process and issues related to it, he notes the absence of a policy framework and the need for an integrated planning framework.

Dirschl, H.

T: 236-240

Reviews the community meetings held in the Lancaster Sound region. See T: 008-014.

Chairman

T: 241-246

Reviews the discussion and issues raised during the northern workshop. (P-02)

Gérin, J.

T: 247-257

Speaking on behalf of the Department of the Environment, stresses the importance of the planning process, and notes that hydrocarbon development north of 60° will proceed only in a way that is environmentally and socially sound. He argues that exploration in the Sound must be deferred until plans and guidelines (objectives and strategies) have been clearly established, and adequate and

appropriate technology has been developed. The Department of the Environment attaches priority to the proposal for a national park comprising all of Bylot Island, Eclipse Sound and some land on the northern tip of Baffin Island, and to the mapping of a conservation inventory for northern areas. (S-02)

Daae, D. **T: 257-266**

Speaking on behalf of the brief submitted by Norlands Petroleum and Magnorth Petroleum, proposes that exploration drilling in search of oil and gas be considered a compatible use of the Lancaster Sound-Baffin Bay region; that exploratory drilling be started as soon as regional clearance is achieved; that environmental data gathering be continued, and that policies and programs be developed to ensure that northerners participate in and benefit from new resource-based activities. (S-03)

Thompson, G. **T: 267-276**

Speaking on behalf of the Inuit Tapirisat of Canada brief, notes that the draft green paper does not address itself to the larger energy picture, fails to address the concerns and needs of the local Inuit communities and virtually ignores the issue of Inuit land claims. The brief recommends that general principles for development of the Lancaster Sound region be established, and proposes eight such principles. The last principle is that no large-scale development proceed in the Lancaster Sound region prior to the settlement of Nunavut land claims. (S-04)

Hea, J.P. **T: 276-281**

Speaking on behalf of the Department of Energy, Mines and Resources brief, describes the department's mandate in general, and notes that Lancaster Sound is a potential area for oil and gas with the most promising acreage presently known and under permit near the entrance of the Sound, and that the technology exists to drill exploratory wells seasonally in Lancaster Sound with confidence for the safety of the operations and protection of the marine environment under Federal drilling regulations. The brief concludes that the department would "like to know" whether the Sound con-

tains commercial fields of gas and oil, but does not 'need to know' immediately. (S-05)

Floe, C. **T: 282-290**

Speaking on behalf of the Cominco brief, notes that Cominco's interest in the Lancaster Sound region stems from its discovery of a large mineral rich zone of zinc and lead at the western edge of the Sound. The brief addresses the four questions outlined in the draft green paper and recommends that mineral exploration not be deferred and that parks and reserves not be established before new industrial development is allowed; and states that Cominco is not engaged in year-round shipping, and that the development of minerals and the retention of a healthy physical environment are not incompatible objectives. (S-06)

Bonus, J.L. **T: 290-298**

Speaking on behalf of the Mining Association of Canada, notes the importance of the Lancaster Sound region on a national scale and the growing world-wide demand for mineral resources. Access to mineral potential must not be artificially constrained and care should be taken to distinguish between the different levels of impacts generated by different industrial activities. (S-07)

Pratt, R. **T: 300-306**

Argues on behalf of the Canadian Nature Federation, that a conservation strategy is the best use for the region on the basis that the evidence of biological significance is compelling in many areas of the region and the conservation of wildlife would ensure a food source for native people. (S-08)

Britton, J. **T: 365-370**

Speaking on behalf of the government of the Northwest Territories, recommends establishing a tripartite Lancaster Sound regional planning board under federal authority mandated to recommend a regional plan to ministers of the federal government with authority to oversee implementation. Further, all parties to the planning process should be represented on a Northwest Passage regulatory

authority. Provision in the planning process must be made for a future government of Nunavut. (S-09)

Wilkinson, P.

T: 370-373

Notes that industrial developers' primary allegiance is to their shareholders, that full attention should be paid to the wealth of experience available in northern Canada and that when compromises must be made between profits and deadlines on the one hand, and the peoples and the environment of the North on the other, that the balance be weighted in favour of the latter.

Gamble, D.

T: 380-390

Speaking on behalf of the Canadian Arctic Resources Committee (CARC), examines the regional planning approach to Lancaster Sound and explores mechanisms to sustain such an approach in the region. (S-11)

Bowie, D.

T: 373-379

Speaking on behalf of the Petro-Canada brief, notes that environmental and social concerns are incorporated into the Petro-Canada decision-making process through impact studies and community consultation at an early stage. The approach acknowledges the concept of multiple land use and incorporates the basic principles of regional planning. The brief outlines Petro-Canada's involvement with EAMES and the Arctic Pilot Project. Petro-Canada strongly endorses the principle of regional planning adding two criteria: that local people need to be involved to the degree that reflects their interest in and dependence on the study area, and that the planning exercise must continue as effectively and expeditiously as possible. (S-10)

Lawler, H.G.

T: 390-398

Speaking on behalf of the Department of Fisheries and Oceans, comments on the planning, development, and management processes in the Lancaster Sound region as they relate to the mandate of this department. (S-12)

Stanton, B., O'Reilly, K.

T: 399-412

Speaking on behalf of a group of students for the Department of Man-Environment Studies of the University of Waterloo on "Lancaster Sound: Options for the Future and Perspectives on Planning," which examines four possible futures for the Lancaster Sound region, each based upon different policy objectives and priorities. (S-13)

Hodgson, D.

T: 412-416

Speaking on behalf of the Marine Administration, Department of Transport, notes that the focus of the department's efforts to date has been on identifying marine services and regulatory needs to ensure safety of marine transportation operations. This department is attempting to develop the necessary services and regulations for the mid-1980s so as not to delay shipping should it occur at that time. This does not necessarily indicate support of this timeframe, however. (S-14)

Palmer, H.

T: 416-429

Speaking on behalf of Dome Petroleum, reviews their current work with reference to the design of arctic marine shipping (see Johansson and Stubbs, 1980), ice tracks and biological studies and oil spill clean-up. (S-17)

Chairman

T: 437-468

Reviews initial discussions of the four work groups as reported by their chairmen.

Eckalook, G., Thériault, A.

T: 469-471

Speaking on behalf of the EAMES advisory board, wish to go on record stating that the green paper, background papers, and preliminary data atlas did not include the latest information derived from the EAMES Project.

Page, H.**T: 472-482**

Speaking on behalf of the Alberta Chamber of Resources, responds to the four questions contained in the preliminary green paper, stating that exploration and development of mineral resources should not be deferred, public parks should not be designated without an assessment of the possible presence of petroleum and other mineral resources, that shipping through Lancaster Sound should be allowed to expand as required for the orderly development of resources, and that there should be an orderly program to explore for possible mineral resources in and around Lancaster Sound, and if found, they should be developed. (S-16)

Allooloo, T.**T: 483-490**

Speaking on behalf of the northern communities, notes that less than 20 years ago the high Arctic was relatively untouched by southern industry, that rapid changes have occurred since this time that have disrupted traditional life-styles drastically; that industrial job opportunities split the family; and that the southerners who came north did not have the time nor the opportunity to understand the Inuit way of life. "We oppose development at this time because of a lack of understanding of the full implications. We live in an unspoiled wilderness, and we want to keep it that way; we are concerned that the technology that is available today is inadequate to mitigate any disaster in Arctic Waters." See also T: 173-177.

Hetherington, C.R.**T: 490-491**

President, Panarctic Oils, notes in a telegram read to the workshop by the chairman that the first liquefied natural gas (LNG) deliveries are scheduled for 1986 and that much new technology developed for LNG shipping can be extended to crude oil shipping. He submits that technological development proceed with a view to year-round shipment of oil and LNG in a safe and efficient manner.

Ittinuar, P.**T: 491-496**

Member of Parliament for the eastern Arctic, reiterates the point that land claims should be settled prior to further development and indicates the relationship between the land claim issue and devel-

opment. He further comments on the use of the North as a laboratory for new technology and suggests caution and the creation of a representative management group as an interim body pending the outcome of land claims.

Pistruzak, W.M.**T: 497-512**

Speaking on behalf of Dome Petroleum's oil spill R and D Program for the Arctic, describes current research and contingency plans developed by Dome over the past five years. The paper notes that there are techniques available, if applied properly and with sufficient logistic back-up, that should significantly reduce the impact of an arctic spill, and that newer techniques and countermeasure systems will continue to be developed as progress is made into the production and transportation phase. (S-17)

O'Brien, C.**T: 512-520**

Argues that wildlife has value and a right to exist for its own sake, whether or not it serves any useful purpose for mankind and that "unspoiled wilderness is the most important resource in Northern Canada." (S-18)

Johnson, P.**T: 520-528**

Speaking on behalf of a group of students from the geography department of Carleton University, addresses the four questions outlined in the draft green paper and formulates 16 recommendations related to these questions. Among these recommendations an "Arctic Islands Authority" is proposed. (S-19)

Svoboda, J.**T: 529-538**

Argues that the draft green paper does not address the issue of the global significance of the Arctic, and that the current attempt to set aside only a limited number of ecologically significant sites is an intrinsically inefficient project. He argues that we must first protect everything and then make exceptions based on careful zoning with respect to the ecological and economic importance of individual areas.

Mills, H.

T: 550-557

Summarizes the issues and position developed by work group A, and notes that the planning and management process is the key to implementation of principles when considering alternative futures for the region, and that people of the region must have a significant role in decision making related to that process. He recommends that a Lancaster Sound planning group be established on an interim basis pending the outcome of land claim negotiations and that the green paper focus on process type options with a discussion of the problem areas that these processes will have to address. The pace and scale of development are important factors in the management of change that will affect the Inuit. (P-04)

Pratt, R.

T: 563-572

Summarizes the issues and positions developed by work group B, which focused their discussion on options 2 and 3; he suggests an interim planning body be established to oversee development of the Lancaster Sound region with a minimum of 50 per cent northern participation working to the seven or eight planning principles discussed in plenary session. (P-05)

Harrison, P.

T: 563-572

Summarizes the issues and position developed by work group D, and recommends that a representative regional planning and advisory group be created and that the relationship between development proposals, land claims, existing agreements, community reactions and impacts on the natural environment be clarified. He states that phased development is a realistic concept for the region, but that "the rules of the game" must be clarified consistent with the CARC principles; that community, government, and industry should assess the requirements for technical, professional, and management-oriented education as well as for career options related to traditional values; and that as multiple-use creates the potential for certain spatial conflicts, areas of potential development conflict need to be identified and co-operative mechanisms for conflict resolution created. (P-07)

Garvin, T.

T: 573-580

Summarizes the issues and position developed by work group C, and recommends that CARC's principles for development be adopted with some modest revisions; that the people of the region have a strong position in the management of the region; that a regional planning body be formed with wide representation and based on a plan or long-term scenario for the region; and that a decision-making process be implemented. He comments on all options and adds a fifth, "the responsible development option." (P-06)

Chairman

T: 580-596

Discusses in plenary session the work group presentations.

Qavavaug, A.

T: 599-601

Speaking on behalf of the community of Arctic Bay, notes that the Inuit want to maintain their culture and that they are concerned about the availability of animals for their descendants. If the animals are wiped out the culture will die. The Inuit must be totally involved with the planning for the region, a "totally" non-destructive planning for the future.

Kalluk, D.

T: 601-603

Notes that the development of Nanisivik has changed the patterns of wildlife, that other communities are also affected by the development of Lancaster Sound, and that we should not rush into the future.

Wetzel, V.

T: 603

Speaking on behalf of Suncor Inc., notes that the company has successfully drilled two wells within the Kendall Island Bird Sanctuary, and one well on an offshore island in a calving area and thoroughway for beluga whales, all within prescribed regulations and without negative impacts or destruction of the sites used. (S-20)

Kigutak, T.

T: 607-609

Speaking on behalf of Grise Fiord, expresses concern about the

sensitivity of animals to disruption and about safeguards to protect the resources for Inuit descendants. "Wildlife seems to be diminishing in the North and we are concerned about wildlife and the environment."

Randall, M.

T: 611-612

Speaking on behalf of the Canadian Labour Congress, notes that the proposed planning body ought to be representative and that organized labour be involved.

Nesbitt, T.

T: 613-618

Notes that the historical relationship of the two cultures has been inadequate and that the perspectives of both cultures are quite different, that the Inuit culture could contribute significantly to the Canadian culture of the South, and that significant power must be given to the Inuit if their culture is to survive.

Mason, A.

T: 619-621

Notes that there is a closeness in the Inuit community and a closeness relative to the environment. The Inuit must have the time to become involved in the changes that will affect their life-styles. "We must be prepared to listen and to act slowly."

Chairman

T: 622-640

Summarizes the three-day workshop and notes that the majority of ideas expressed can be grouped in terms of people and politics, goals and objectives, planning and the management process, and finally, action.

Ruel, M.

T: 641-646

Closing remarks on behalf of the Department of Indian Affairs and Northern Development.

Appendix B

Formal Submissions

MacPherson, A.H., 1981. Submission on Behalf of Environment Canada, Western and Northern Region. 13 p.	S-01	Gamble, D.I., 1981. Submission on Behalf of the Canadian Arctic Resources Committee. 13 p.	S-11
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Floe, C., 1981. Submission on Behalf of Cominco Ltd. 6 p.	S-06	Page, H.V., 1981. Submission on Behalf of the Alberta Chamber of Resources. 5 p.	S-16
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Pratt, R., 1981. Submission on Behalf of the Canadian Nature Federation. 5 p.	S-08	O'Brien, C., 1981. Submission to the Plenary Session. 12 p.	S-18
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Bowie, D.B., 1981. Submission on Behalf of Petro-Canada. 4 p.	S-10	Wetzel, V.F., 1981. Submission on Behalf of Suncor Inc. 3 p. and slide descriptions.	S-20

Appendix C

Material Generated during the Public Review Process

Dirschl, H., 1981. P-01

Résumé of Community Meetings in Resolute, Pond Inlet, Grise Fiord, and Arctic Bay. Kenn Harper, Rapporteur; 21 p.

Jacobs, P. (Chairman), 1981. P-02

Summary of Proceedings: Northern Workshop. Resolute Bay, N.W.T.; May 1981; Margaret Ault, Rapporteur; 20 p.

Department of Indian Affairs and Northern Development, 1981. P-03

Background Material for Southern Workshop Participants. Lancaster Sound Regional Study, Indian Affairs and Northern Development; 8 p.

Mills, H., 1981. P-04

Summary Report: Work Group A. Southern workshop, Lancaster Sound Regional Study; Ottawa; 4 p.

Pratt, R., 1981. P-05

Summary Report: Work Group B. Southern workshop, Lancaster Sound Regional Study; Ottawa; 7 p.

Garvin, T., 1981. P-06

Summary Report: Work Group C. Southern workshop, Lancaster Sound Regional Study; Ottawa; Margaret Ault, Rapporteur; 8 p.

Harrison, P., 1981. P-07

Summary Report: Work Group D. Southern workshop, Lancaster Sound Regional Study; Ottawa; 2 p.

Appendix D

Selected Letters

Wiesman, B.

States that despite an important effort to collect and communicate information about Lancaster Sound there is an apparent absence of (i) any clear framework for planning and decision making, (ii) identification of major questions that need to be addressed, and (iii) mechanisms for resolutions.

letter 06

03-12-80

Runka, G.G.

Hopes the green paper will provide insight into the methods of trade-off analysis, improved data at larger scales, and proposed long- range planning process. The question of the relationship of the scale of planning and decision making should be addressed.

letter 10

05-01-81

Polar Gas

Notes that deferring industrial activity does not necessarily ensure Inuit access to wildlife resources and that it is not clear if management of hunting, fishing, and trapping could be more effectively implemented in protected areas than elsewhere. Numerous comments about the green paper are included.

letter 25

25-01-81

Sprague, J.

Is distressed by the limited scope of the objectives and guidelines for work under the EAMES program and notes that one has to understand how ecological systems in the North work before one can make predictions. Thus, because of the biological importance of Lancaster Sound, development should be delayed until adequate ecological studies are conducted.

letter 43

06-05-81

Pratt, R.

Following the Lancaster Sound workshop, reviews the development of federal policy protecting northern wildlife for native use between 1918 and 1948, and the role of the territorial government for the following 20 years thereafter. Seven sites are proposed as national parks, wildlife areas, or ecological reserves. He argues that the geographic magnitude of these areas does not represent "a conservation land grab."

letter 47

19-06-81

Clarke, G.B.

On behalf of the Tourism Industry Association of Canada, responds to the four questions in the draft green paper; his responses are based on the association's endorsement of the CARC workshop held in November 1979 and its dedication to maintaining the quality of the natural environment. Policy goals and management styles for development in Lancaster Sound must not be transplanted from the South, but be of the North and for the North.

letter 50

15-05-81

Williams, N.

On behalf of the Manitoba Naturalists Society argues that the ecological uniqueness of Lancaster Sound and the surrounding region indicates that it is not an appropriate area for technological experimentation; that key areas should be designated as parks or reserves; and that long-term solutions to economic development based on renewable resources should be sought for the region.

letter 51

04-06-81

Appendix E

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